

other cases in the manner suggested by the Solicitor's Office. In that regard, several attachments (that include comments) and exhibits (identical copies) have been provided to the Patent Office in Applicant's related cases (for example, U.S. Serial Nos. 08/306,456 and 08/306,751) as indicated below along with supplemental comments. A description of the various attachments and exhibits follow. Additional copies of attachments and exhibits (Volumes I and II) are provided with this document. Copies of all of the art is not submitted to avoid burdening the Examiner and the Patent Office with excessive paper. Certain copies are provided that are discussed later.

1. LIST OF ATTACHMENTS

(Court Paper Lists and Attachments)

Note: Summary lists of litigation papers filed and/or served in cases relating to certain patents are provided for each of the litigated cases, designated here as Suit I (*First Data Resources (hereafter "FDR") v. West Interactive Corporation*¹), Suit II (*RAKTL and MCI v. AT&T Corp. (hereafter, "AT&T")*), *Universal Card Service Corp. (hereafter "UCS")*, and *AT&T American Transtech, Inc. (hereafter "Transtech")*², and Suit III (*RAKTL v. Microvoice*)³ (see Attachments A, B, and C, respectively). Generally, many such litigation papers were designated under a protective order and consequently, although Applicant's litigation counsel had access to them, Applicant's prosecution counsel (Mr. B.G. Nilsson and Ms. Reena Kuyper) were not approved for access. Under the terms of the protective order in Suit II, litigation counsel could not actively participate in prosecution matters.

It also is noteworthy that many of the papers were directed to procedural matters that are substantively unrelated to the patents, as: scheduling, generic form allegations, evidentiary issues, and so on.

¹ See Attachment A, Suit I Summary of Papers Filed in Court or Served on Either Party in Suit (*First Data Resources v. West Interactive Corporation*).

² See Attachment B, Suit II Summary of Papers Filed in Court or Served on Either Party in Suit (*RAKTL and MCI Telecommunications Corporation (hereafter "MCI" now MCI Network Services ("MWNS")) v. AT&T Corp. (hereafter "AT&T")*), *AT&T Universal Card Service Corp. (hereafter "UCS")* and *AT&T American Transtech, Inc. (hereafter "Transtech")*.

³ See Attachment C, Suit III Summary of Papers Filed in Court or Served on Either Party in Suit (*RAKTL v. Microvoice*).

Suits I and III were resolved by defendants taking a license. Regarding Suit II, which proceeded to a stage far more advanced than attained by either of Suits I or III, numerous papers have addressed claim terms and proposed definitions for such claim terms. Indicating resolution of such terms, an attachment (*see* Attachment B1) is provided setting out claim terms as defined by the Court as a result of a Markman Hearing.⁴

Suit II was also resolved in December of last year by the defendants (AT&T and UCS) taking a license. The defendant Transtech has settled but Applicant does not have liberty to disclose the terms of the settlement agreement with Transtech. During the course of Suit II, as part of discovery, the defendants variously produced an enormous amount of documents (about 1 million or so as indicated by Applicant's litigation counsel) presumably of possible interest to various litigation issues such as infringement etc. These documents apparently include patents, non-patent publications, published articles, news releases, equipment specifications and so on. Most of the produced documents were marked "CONFIDENTIAL." The documents were produced under a Protective Order of the Court, specifying limited use of the documents and confidentiality for documents so designated. They were frequently mismarked. Accordingly, neither Applicant nor Applicant's prosecution counsel has had access to these documents. It is understood from Applicant's litigation counsel that perhaps only at the outset was the entire production quickly reviewed in a "flash cut" with a view to determine if any of the documents are pertinent from a prior art standpoint. A more comprehensive review of all the documents from that viewpoint was not undertaken as discovery relating to validity and infringement issues was deferred in part by the judge to follow claim interpretation to be resolved at a Markman Hearing.

As part of the discovery leading up to the Markman Hearing, the defendants filed their invalidity contentions that identified and purported to apply prior art to a select number of claims (20). Defendants also identified select prior art in their responses to Applicant's interrogatories. After the Markman hearing, litigation counsel analyzed the potential prior art provided by defendants and related materials of interest with respect to select claims in suit.

⁴ A Markman Hearing occurred in Suit II, *Ronald A. Katz Technology Licensing, L.P. and MCI Telecommunications Corp.*, Civil Action No. 97-4453 (USDC, ED PA) and Ruling was issued (See Attachment B2 and Exhibit B1).

However, those materials were generally designated as 'CONFIDENTIAL' under the protective order and were not available to Applicant's prosecution counsel for review.

Applicant's litigation counsel have attempted to clarify what information cited by defendants during the litigation could be provided to Applicant's prosecution counsel for use in prosecution matters. To date, those discussions now have resulted in an understanding by litigation counsel that patents and certain published information (as best ascertained by the litigation counsel) provided by the defendants may be used by Applicant in prosecution matters. Some of these documents remain unavailable to Applicant's prosecution counsel.

Applicant's prosecution counsel have briefly reviewed the U.S. patents and have provided brief explanations below in CHARTS A, A1, and B with preliminary distinctions (see PTO Forms 1449, Supplemental V (cited by either AT&T or UCS or both only), Supplemental VA (cited only by Transtech) and Supplemental VI (accumulated by Applicant from other sources).

Applicant's prosecution counsel have also reviewed published documents provided by the defendants (when stacked about 5 feet in height and cited in PTO Forms 1449, see Supplemental VII) and have provided brief explanations here. For the Examiner's convenience, an extra copy of the set of forms PTO-1449 (Supplemental V, VA, VI, and VII) are attached hereto, so the Examiner can initial the references to indicate his consideration.

It should be noted that this stack of published documents includes duplicates and references that are clearly not pertinent to the Katz portfolio, for example, references reporting the Mexican earthquake, basketball etc. Also, many of the documents address financial or business considerations or are simply cryptic news stories taken for example from LEXIS-NEXIS service. Generally, the documents fall into subject categories such as private branch exchange (PBX) switches, voicemail components, ANI services per se, DNIS services per se, 800 and 900 service per se, ISDN operations, telephone billing and routing techniques, voice processing, and telephone technology generally. In reviewing the stack of published documents, none were located which were found to be pertinent to the present application or related applications generally. Accordingly, Applicant is not providing copies of all the references at this point. However, copies of a select few to represent the nature of the citations are being provided (further discussed at pages 72-74 here). In the event the

Examiner would like copies of everything or other select items, the Examiner is respectfully requested to advise the undersigned.

Applicant's prosecution counsel have reviewed other documents asserted by AT&T when adverse to the Applicant. These documents were released for review and forwarded to Applicant's prosecution counsel on January 11, 2001. The accompanying Forms PTO-1449 (designated as Supplemental VIII) provide a listing of documents (References B-M) that AT&T had possibly asserted as prior art when adverse to the Applicant. AT&T has now indicated these documents are non-confidential, thereby allowing Applicant's prosecution counsel to access them. On reviewing these documents, Applicant's prosecution counsel do not believe any of them are of much interest to the claims of this application. Nonetheless, CHART C (pages 74-75) lists all the documents and indicates short comments relating to each. A copy of each of these documents is provided because they are representative of articles and publications available from Bell Labs. An additional document (copy attached) on AT&T's network communications that Applicant's prosecution counsel recently came across is also cited on another Form PTO-1449 (designated as Supplemental IX).

In another regard, with respect to the Suits, certain claim terms have been the subject of interrogatories and related responses along with other subjects as: claim support in specifications, priority dates, specification background comments, proposed language interpretations, document authorship, and other matters of fact.

Document requests have addressed: potentially infringing systems, factual aspects of the Parties and other subjects. In addition to scheduling matters, evidentiary questions and discovery, court papers also have addressed the Markman Hearing, which is treated below and in certain attachments.

Invalidity contentions (see Exhibits AI (by West), BII (by AT&T), and BIII (by UCS)) also were expressed during the pretrial phase of Suit I and Suit II. Although the defendant Transtech also expressed its invalidity contentions, it had denied Applicant permission to disclose them to the Patent Office until a Judge's ruling issued during the first week of January 2001. At any rate, those contentions in Suit II (RAKTL and MCI v. AT&T Corp., et al.), however, were based on a construction of the claims being advanced by defendants at the time. **That proposed claim construction was largely not the one**

ultimately adopted by the Court in its Markman decision. Defendants were not required to update those contentions based on the Court's Markman ruling before Suit II was settled. Applicant and MCI do not agree with the rejected contentions of defendants, as set forth in their responsive contentions.

Further related to the Markman Hearing (*see* Suit II), several demonstrative exhibits were presented. Such demonstrative exhibits from the Plaintiff were provided as a teaching tool and showed claims and drawings from the patents along with background information. Defendants' demonstrative exhibits addressed: telephone systems, patent drawings, drawings from references showing elements and prosecution history comments.

The following attachments and exhibits including those identified above and additional ones summarize the substance of Suits I, II, and III that remotely may be of possible interest to patent prosecution.

RE SUIT NO. I
(FDR v. West Interactive Corporation)

Attachments
(see Vol. I)

Identification

Attachment A. (Suit No. I)	List No. I – Summary of Court Papers of Suit No. I ⁵
Attachment A2.	Summary of Nilsson Deposition
Attachment A3.	Summary of Nilsson Declaration
Attachment A4.	Summary of Rudolph Declaration

Exhibit
(see Vol. I)

Identification

Exhibit A1	Contentions by West Interactive Corporation
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RE SUIT NO. II
(RAKTL and MCI v. AT&T)

⁵ See Attachment A, Suit I Summary of Papers Filed in Court or Served on Either Party in Suit.

Attachments

(see Vol. I)

Identification

Attachment B. (Suit No. II)

List No. II – Summary of Court Papers of Suit No. II⁶

Attachment B1.

from Markman Conclusions of Law – Defined Claim Terms

Note: An abstract of the claim terms defined by the court in the Markman Ruling.

Attachment B2.

from Markman Conclusions of Law (Court Ruling) - Expanded Table of Contents

Note: The Court's Table of Contents has been expanded with italicized comments to provide an abstract of the Conclusions of Law treating defendants' contentions and related rulings by the Court.

Attachments B3.

Two Letters from Litigation Counsel

Attachment B4A.

Report by Plaintiffs' Expert (Mr. Sanford Morganstein)

Note: An abstract is provided.

Attachment B4B.

Rebuttal Report by Plaintiffs' Expert (Mr. Sanford Morganstein)

Note: An abstract is provided.

Attachment B5.

Report by Defendants' Expert (Dr. Larky) – Deposition

Note: An abstract is provided.

Attachment B6.

Report of Defendants' Expert – Dr. Peter K. Bohacek

Note: An abstract of the report is printed.

Attachment B7.

Defendants' Redacted Pre-Markman Hearing Brief On Primary Issues

Note: The Table of Contents has been expanded, abstracting the substance of the Brief in italics.

Attachment B8.

Plaintiffs' Markman Hearing Brief

Note: Table of Contents and a comment on the Brief.

Attachment B9.

Defendants' Redacted Pre-Markman Hearing Brief on Secondary Issues

Note: The Brief has been abstracted to indicate concisely Defendants' arguments and the related judicial determinations by the Court.

⁶ See Attachment B, Suit II Summary of Papers Filed in Court or Served on Either Party in Suit.

Attachments

(see Vol. I)

Attachment B10.

Identification

Transcript of Defendants' Expert – Dr. Larky
Note: An abstract is provided.

Attachment B11.

Transcript of Plaintiffs' Expert (Mr. Sanford Morganstein) – Deposition
Note: An abstract is provided.

Attachment B12.

Transcript of Mr. Katz – Depositions
Note: Locations in the transcripts are identified
for testimony relating to individual patents.

Exhibits

Exhibit BI.
(see Vol. I)

Identification

Markman Conclusions of Law
Note: Full text of the Court's Ruling.

Exhibit BII.
(see Vol. II)

Contentions by AT&T

Exhibit BIII.
(see Vol. II)

Contentions by UCS

Exhibit BIV.
(see Vol. II)

Protective Order 9/29/97

Exhibit BV
(see Vol. II)

U.S. Patent No. 4,401,856 (Curtin et al.)

RE SUIT NO. III
(RAKTL v. Microvoice)

Attachments

(see Vol. II)

Attachment C. (Suit No. III)

Identification

List No. III - Summary of Court Papers of Suit No. III⁷

⁷ See Attachment C, Suit III Summary of Papers Filed in Court or Served on Either Party in Suit.

Attachments
(see Vol. II)

Attachment C1.

Identification

Letter from Litigation Counsel

FORMS PTO-1449

Forms PTO-1449
(see Vol. II)

Supplemental V. and VII.

Identification

Forms PTO-1449 listing art cited by Defendants (AT&T, Transtech, and UCS)

Supplemental VA.

Forms PTO-1449 listing art cited by Defendants (Transtech)

Supplemental VI.

Forms PTO-1449 listing art accumulated by Applicant (through other sources)

Suit III was settled in October, 1999, after only preliminary activity. Specifically, claims were selected for assertion and accused operations were identified. However, the pretrial procedures did not reach a stage of substantially addressing the patents. Accordingly, none of the papers identified in Attachment C are being provided as pertinent. To that end, see letter from litigation counsel (see Attachment C1). Distinct from the attachments as identified above, some further comments are appropriate in relation to each of the suits as treated below.

2. COMMENTS ON THE VARIOUS SUITS

Suit No. I. *First Data Resources Inc. (then owner of the patents) v. West Interactive Corporation.*

In December of 1993, Suit I was resolved when the defendant took a license to the patents. During Suit I, the defendant cited a voluminous amount of art and, in particular, asserted some 50 references. Applicant has already brought all of those references to the Examiner's attention.

Certain documents listed in the Suit I summary were designated under a protective order or are otherwise not available to Applicant for review or comment. Nevertheless, the papers appear to be completely irrelevant to the issues of unenforceability, invalidity, and so on. The Suit I summary

(Attachment A) is being provided with the belief that the Examiner will request a copy of any document listed that may appear to be of interest. In the Suit I summary, documents of possible interest (designated by letters "L," "M," or "I") are segregated from others that are completely irrelevant. To assist the Examiner, Applicant's prosecution counsel have carefully reviewed and summarized the declarations by plaintiff's expert, Mr. Rudolph, and Applicant's counsel, Mr. Nilsson, as well as a transcript of Applicant's deposition. *See* Attachments A2, A3, and A4. Also, Applicant's prosecution counsel is providing a copy of the defendants' invalidity contentions.

Suit No. II. *RAKTL (the present owner of the patents and co-plaintiff) and MCI Telecommunications Corporation (licensee and co-plaintiff) v. AT&T*

As indicated above, certain of Applicant's patents were the subject of litigation between the parties identified above. Litigation counsel has interacted with the defendants in Suit II. In that regard, Applicant's prosecution counsel has not been privy to much of the litigation communication, as that which is designated under a protective order (Exhibit BIV). *See* letters (Attachment B3) from Applicant's litigation counsel. Prosecution counsel have studied select communications between the parties in suit, not designated confidential, to determine if they appear to address issues of unenforceability, invalidity, etc. Prosecution counsel have created a Suit II Summary⁸ listing papers filed in court and/or served on either party involved in the suit. The Suit II Summary may exclude certain correspondence between litigation counsel for plaintiffs and a Special Master assigned to the case. That correspondence is not believed to be of interest to the Examiner as it relates to the scope of discovery. In the event the Examiner would like to see copies of that correspondence, please advise.

Rulings (Court's Conclusions of Law Regarding Patent Claim Construction (hereafter CCL)), in a Markman hearing relating to Suit II should be noted. Provided before (with respect to U.S. Serial No. 306,751) is a copy of the entire court ruling (*see* Exhibit BI) followed by an expanded Table of Contents (*see* Attachment B2). That is, for the Examiner's convenience, Applicant's prosecution counsel have expanded the Court's Table of Contents to indicate and summarize the defendants' arguments and the Court's ruling on each argument.

⁸ *See* Attachment B, Suit II Summary of Papers Filed in Court or Served on Either Party in Suit.

The art that defendants cited or asserted (in particular, see attached copies of invalidity contentions, by AT&T and UCS (Exhibits BII, and BIII) is indicated on the attached Forms PTO-1449 (Supplemental V). Other art cited only by the defendant Transtech is indicated on the attached Forms PTO-1449 (Supplemental VA). Other art that may have come to light from other sources, such as cited by Examiners in related applications also is cited on the attached Forms PTO-1449 (Supplemental VI). In addition, Applicant is providing copies of invalidity contentions by various defendants (AT&T and UCS) in the event that the Examiner should wish to consider the arguments urged by the defendants (*See* Attachments BII (contentions by AT&T), and BIII (contentions by UCS)). Applicant has already provided copies of many of the foreign patents and articles in Supplemental V and VI in related cases (for example, Serial No. 08/306,751), and is not providing copies herewith so as to not provide excessively burdensome papers. Copies of the documents cited in Supplemental VA and VII are not being provided at this point because they are largely not of interest. The undersigned assumes that copies of the patents are easily available to the Examiner online. If the Examiner would like copies of the patents, please advise the undersigned. Also, the Examiner should note that not all the references cited by the defendants constitute prior art. Filing and issue dates for the patents and publication dates of the articles and foreign patents are provided to assist the Examiner with making an independent determination of which references (if any) constitute prior art.

Although numerous issues regarding the construction of the claims arose during the litigation, those, the parties believed were most important with respect to a selected set of 20 claims were the subject of the Markman hearing. Consequently, the Markman ruling is a concise summary of plaintiffs' and defendants' significant arguments that may have also been urged in the numerous briefs and other papers filed during the entire period of the litigation. Nonetheless, Applicant's prosecution counsel also is providing abstracts prepared on the report filed by plaintiffs' expert (Mr. Sanford Morganstein, Attachment B4A) and defendants' experts (Dr. Larky, Attachment B5, and Dr. Bohacek, Attachment B6) as well as rebuttal by plaintiffs' expert (Attachment B4B).

Also, prosecution counsel is providing expanded tables of contents for various briefs (*See* Attachments B2 and B7) and comments and abstracts on other briefs (*See* Attachments B8 and B9). The comments are italicized. Also, abstracts of various deposition transcripts are provided. (*See* Attachments B10 (Larky), B11 (Morganstein), B12 (Katz)). The Examiner is requested to indicate

any particular document or area of interest in depth. If available, Applicant's prosecution counsel will provide copies.

As indicated above, Applicant's prosecution counsel received a substantial number of U.S. Patents variously identified by Defendants (AT&T and UCS only) in Suit II to Applicant's litigation counsel, for example, in response to document demands. These documents are identified in Supplemental V.

As a further matter, it is Applicant's understanding that any positions asserted during litigation that may be construed by others as unclear in view of positions urged during prosecution should be clarified. In the course of Suit II, the term "DNIS" was treated, as in its functions related to the provision of called number identification data, for example, as recited in the parent patent 5,561,707, claim 103. The various comments and contentions asserted with respect to the term "DNIS" were resolved by a ruling of the Court. Specifically, some comments are deemed appropriate with regard to the CCL (Court's Conclusions of Law).

Preliminarily, consider some quotations and comments relating to DNIS that are taken from the CCL. First, an issue arose as to whether or not signals providing the DNIS capability are restricted to a specific number of digits. In that regard, the Court stated:

"However, the mere reference to 'called number' does not restrict 'called number identification data' to a certain number of digits, nor is there reason to restrict the terms 'DNIS' and 'called number identification data' to the examples provided by Katz in the specifications." (CCL, pp. 56)

A somewhat related contention by defendants urged that the "DNIS" capability specified in the Katz claims must indicate a full or complete dialed number. In that regard, after quoting from the '707 Katz patent, the Court stated:

"These passages confirm that DNIS or called number identification data must only be a signal that identifies the called number and need not be only the seven or ten digit number." (CCL, pp. 57)

In another portion of its opinion, the Court considered Applicant's discussion of patents discussing direct inward dialing, or DID, during prosecution of certain parent patents hereto. During prosecution, for example, of U.S. patent ['707], Applicant states, referring to the DID service, that "[T]he operation was quite different from using DNIS signals to select formats". (Amendment 8/31/95, '707 Patent filewrapper). The Court specifically addressed

Applicant's discussion of DID in connection with Matthews, '012, Matthews, '906, Vij, '682 in prosecution of other related patents, the Court stated:

"These statements indicate that Katz distinguished his inventions from other patents on the basis of the comparative functions of the systems; the systems in the other patents use signals to route telephone calls, not select a format from a group of formats or to store data associated with those signals. However, Katz never informed the PTO that the same numbers that other systems used to route calls could not be used to identify the called number and select a format. In short, it is not clear from Katz' statements, contrary, to the defendants' contention, that 'internal routing numbers' to the extent they can identify the called number, could not be included in the meaning of called number identification data or DNIS, as used in the Katz patents.

Based on the foregoing, the Court concludes that the terms 'DNIS' and 'called number identification data' are synonymous and mean: a signal or data that identifies the number called."

To focus on the "comparative functions" as mentioned by the Court, some further clarification of the DNIS capability or service for the record is deemed appropriate. In that regard, the comments below also are pertinent to the testimony of Applicant's Expert, Sanford J. Morganstein. The comparative functions of the DNIS capability (versus DID service), which offer distinct benefits in Applicant's combinations, include: the use of non-specialized trunks (as in each trunk does not have to contain lines corresponding to specific DID numbers), the flexibility of number designation, the availability of flexible line allocation and the operation of supplying DNIS by addressing the carrier's DNIS database (for example, one or more memory sources located at one or more interexchange carrier locations), and the use made of signals from the network. Thus, in accordance with Applicant's prior position during prosecution, the recitation of DNIS capability in the Katz patents is deemed distinct from DID service in the contexts as claimed because of the reasons set forth above. Most obviously, DID service uses signals received over trunks devoted to specific lines within the network (a block of DID numbers) in a manner distinct from the use of DNIS signals in the Katz inventions as claimed (for example, to select a format).

Also, relating to the DNIS capability and DID service, some art was identified in Suit II, which merits comment. Specifically, for example, attention is directed to U.S. Patent 4,401,856,

Curtin et al., "Control System for Handling Direct Inward Dialing Telephone Calls" (copy attached here for convenience, Exhibit BV). Although the Curtin et al. patent, relating to DID, is not a significant addition to the art of record, it is of interest to and merits mention with regard to the above considerations. A pertinent passage from the Curtin et al. patent is as follows:

"Another possible use of the control system for handling DID lines of the present invention is to assist individuals in identifying incoming callers. Individuals can rent a block of DID numbers from the telephone company (for example, 10 numbers but still only one access line) and then use the control system so as to enable the individual user to be able to identify the incoming caller. For example, people in business have special groups of clients to whom they desire to provide special attention. By giving any particular client a particular DID number which is unpublished, when the control system identifies the particular DID number being called, the telephone user then knows which client is calling and the individual user can act accordingly. While in accordance with the preferred embodiment of the present invention, as disclosed herein, it is indicated that the last three digits of the called DID number is displayed, it is possible that the control system could display a different number of digits or the actual name of the particular client or subscriber associated with the particular DID number." (claim 3, line 41+)

Suit No. III. *RAKTL (the present owner of the patents and plaintiff) v. Microvoice Inc.*

Certain patents were the subject of litigation between the parties identified above, resolved by a consent judgment and license agreement entered in October, 1999. Prosecution counsel for Applicant is providing a Suit III Summary (see Attachment C) of all documents filed in Court or served to either party in suit (with respect to U.S. Serial No. 08/806,751). Again, any prior art identified by defendant is included in the attached Forms PTO-1449.

3. DISCUSSION OF DOCUMENTS LISTED IN SUPPLEMENTAL V, VA, VI, & VII

CHART A (SUPPLEMENTAL V and VI)

<u>U.S. Patent No.</u>	<u>Inventor</u>	<u>Issue Date/ Filing Date</u>	<u>Comments</u>
3,787,632 (Supplemental V)	Male et al.	01/22/74/ 06/28/71	An automatic number identification system for identifying the calling station of a branch telephone exchange and transferring the information via the normal talking path connection through the central office is described.
3,940,569 (Supplemental V)	Schonbrun et al.	02/24/76/ 08/08/73	Toll call restriction is based on a binary counting of the dial pulses of the called number.
3,987,252 (Supplemental V)	Vicari	10/19/76/ 06/27/75	Computer controlled concentrator to reduce the number of trunk lines for serving subscribers. Operators can answer any incoming call (any subscriber line) to take a message or give a message. Calls are diverted to "free" operator position. The patent describes an early form of "call center" with call distributions.
4,068,099 (Supplemental V)	Mikkola et al.	01/10/78/ 05/21/76	A system for multiplexing (time division) calls for special service (e.g. news, weather, etc. by recorded message). Callers are multiplexed for receiving service information.
4,087,638 (Supplemental V)	Hayes et al.	05/02/78/ 10/01/76	A DTMF generator uses a dual oscillator (digital waveform synthesizer) to produce two output sine waves and is selectively timed to provide DTMF signals along with "ANI" signals (4 or 8 digits) that are inserted at the outset of operation.
4,090,034 (Supplemental V)	Moylan	05/16/78/ 06/09/77	PBX billing system based on ANI, as for hotel use to bill guests.
4,160,129 (Supplemental V)	Peyser	07/03/79/ 05/03/77	Long distance routing control system with priority selection of lines and a connection through the selected lines that does not pass through the central control that selects the lines. Satellite switching units are used. Data for billing is recorded.

<u>U.S. Patent No.</u>	<u>Inventor</u>	<u>Issue Date/ Filing Date</u>	<u>Comments</u>
4,192,972 (Supplemental V)	Bertoglio et al.	03/11/80/ 11/28/78	A pay-telephone station that handles local and long-distance calls includes a microcomputer which, at the end of the conversation or under certain circumstances, selectively collects predeposited payment items of different denominations calculated according to the debt incurred and to the denominations available to optimize the refunding of any excess to a user. The microcomputer also determines, upon the start of a call, whether the initial deposit suffices for at least the basic charge on the type of connection (local or trunk call) sought to be set up and, if it does not, invites the user to make an additional deposit before aborting the call. The remaining credit balance is continuously signaled to the caller on a display unit and, even before actual collection, is diminished according to the applicable rate in response to each metering pulse arriving from the exchange.
4,221,933 (Supplemental V)	Cornell et al.	09/09/80/ 12/21/78	Centralized voice message system uses digital memory to store messages. ESS trunk circuits are incorporated with interface units to store and retrieve, using ANI to identify callers (col. 4, ln. 1).
4,255,619 (Supplemental V)	Saito	03/10/81/ 09/05/79	Telephonic reservations system uses a data transmitter 41 coupled to a telephone to interface the reservations system. See col. 9 for script. As related to Katz systems, the Saito system appears to be no more than a basic reservations system using a special data transmitter with a keypad.
4,360,875 (Supplemental V)	Behnke	11/23/82/ 02/23/81	Special purpose terminals (keyboards) interface a central computer to arrange rides on vehicles (private cars) which have drivers planning a trip.
4,401,856 (Supplemental V)	Curtin	08/30/83/ 05/13/81	Operating with DID lines, the last digits of the called number are decoded and displayed (col. 10, ln. 12). Also, display could be of a particular client as disclosed (col. 3, ln. 59).
4,428,296 (Supplemental V)	Scheuchzer et al.	01/31/84/ 08/04/81	A railroad track relaying train.
4,445,001 (Supplemental V)	Bertoglio	04/24/84/ 03/02/82	Subscribers are equipped with structure to interrogate an identification unit to reveal a calling number which is provided as a signal to activate a display at the equipped subscriber location.

<u>U.S. Patent No.</u>	<u>Inventor</u>	<u>Issue Date/ Filing Date</u>	<u>Comments</u>
4,517,412 (Supplemental V)	Newkirk et al.	05/14/85/ 11/23/83	Pay phones are equipped with major credit card reader units to read cards, communicate through a satellite station to a central processor for verification and perform network management plus credit card billing.
4,518,824 (Supplemental V)	Mondardini	05/21/85/ 06/07/82	A public telephone method and apparatus is described wherein the user's personal telephone number and a personal dialing code are used to effect debiting charges.
4,549,291 (Supplemental V)	Renoulin et al.	10/22/85/ 09/09/83	A hybrid local communication network, operating both in circuit and packet modes.
4,585,903 (Supplemental V)	Schiller et al.	04/29/86/ 06/25/84	A cordless telephone.
4,591,665 (Supplemental V)	Foster et al.	05/27/86/ 07/12/83	To trace absence calls, a calling number is stored in a memory associated with the called number and is displayed at the called number on request by entry of a post call code.
4,600,809 (Supplemental V)	Tatsumi et al.	07/15/86/ 05/24/84	A wireless system with DTMF decoding to take messages for an unattended telephone and indicate the calling number.
4,611,096 (Supplemental V)	Asmuth et al.	09/09/86/ 12/01/83	Local telephone office capability to either "hand off" or obtain "assist" in giving service as CTI, e.g. airline telephone service. See "Announcements and Digit Collection" (col. 7); also, "Assist and Handoff" (col. 9).
4,625,081 (Supplemental V)	Lotito et al.	11/25/86/ 11/30/82	Messages are stored in baskets that are associated with individual telephone lines and received with PIN entry and little operator involvement. Selective "answering" per number of rings, time of day, etc. (col. 150, ln. 65). Interface operation (col. 151). Re service options, see col. 158, ln. 1. Re message delivery, see col. 169, ln. 66.
4,640,991 (Supplemental V)	Matthews et al	02/03/87/ 09/29/82	(also see Matthews '486) Voice mail system with: controlled limited access, digital or public network link, etc. DID (col. 69, ln. 25, see Matthews '486). Receive only (RO) message address is used.
4,672,660 (Supplemental V)	Curtin	06/09/87/ 06/07/85	A method and system for identifying who is placing a call to a telephone prior to answering. Also, discloses DID.
4,685,127 (Supplemental V)	Miller et al.	08/04/87/ 10/01/85	Uses ANI to identify callers on long distance calls and thereby select the chosen long distance carrier for the call.

<u>U.S. Patent No.</u>	<u>Inventor</u>	<u>Issue Date/ Filing Date</u>	<u>Comments</u>
4,747,124 (Supplemental V)	Ladd	05/24/88/ 05/06/85	A computer unit with speech capability is coupled in front of a PBX to expand its capability. DTMF signals from caller are decoded to control PBX.
4,759,056 (Supplemental V)	Akiyama	07/19/88/ 11/09/84	A communication system offering specific services to specific persons has a portable memory device with a record of personal information such as the bearer's identification number, class of service, personal date etc. In making a call, the bearer of the memory device puts it on a communication terminal device and the terminal device reads out the personal information, which is transferred to a data processor such as a central processor in exchange so that a service specific to the calling person is rendered.
4,761,808 (Supplemental V)	Howard	08/02/88/ 03/18/87	As for controlling access to long distance calls, a caller uses an I.D. number (alphabetic) including a time code and an address code. The time code is changed in an autodialer to limit access.
4,791,666 (Supplemental V)	Cobb et al.	12/13/88/ 06/19/87	A method and apparatus for connecting on electromechanical telephone central office having a step-by-step or cross bar type switching equipment to a remotely located automatic interrupt message system.
4,797,818 (Supplemental V)	Cotter	01/10/89/ 03/26/87	A pizza chain ties all parlors to a central computer, using modems at the central and printers at the parlors. Orders are taken at the central and on the basis of area code, zip code, exchange number or street address, a parlor is selected. The order is printed. Disclosed embodiment uses home address, per "Informix" database. Calls go to operator at CRT, however, voice recognition etc. is mentioned (col. 4, ln. 52). Also "sequential transaction numbers" are assigned for each store (col. 4, ln. 60).

<u>U.S. Patent No.</u>	<u>Inventor</u>	<u>Issue Date/ Filing Date</u>	<u>Comments</u>
4,805,207 (Supplemental V)	McNutt et al.	02/14/89/ 09/09/85	This patent relates to a system that takes and retrieves telephone messages. Their system allows one or more operators to receive calls to a called party who is not able to answer the phone. Information specific to the called party is presented to the operator in response to conventional data from a PBX indicating the called party, and optionally the calling party in some cases. The operator may take a message for the called party by typing the message on a terminal, which is stored. Messages that are stored may be retrieved through a remote station.
4,878,240 (Supplemental V)	Lin et al.	10/31/89/ 01/25/88	Enhanced telephone services are provided through a multi-service telephone switching system that contains a programmable adjunct connected to a telephone switching system. Different service scripts can be invoked to provide corresponding different enhanced services to the subscriber depending upon the specific condition for which the call was routed to the adjunct and/or a specific event occurring during the call.
4,893,325 (Supplemental V)	Pankonen et al.	01/09/90/ 09/23/88	A telephone call distribution system for handling a special type call, the call containing at least automatic number identification (ANI) data.
4,896,346 (Supplemental V)	Belfield et al.	01/23/90/ 11/21/88	A password controlled switching system and method of operation for enrolling and storing passwords identifying lines and trunks of the switching system that are denied access by other lines. The system is operable upon a watch of a calling party command with an enrolled and stored password for selectively interconnecting the calling party via a line with ones of the restricted lines and trunks.
4,899,373 (Supplemental V)	Lee et al.	02/06/90/ 11/28/86	This patent relates to a method and apparatus for providing personalized telephone subscriber features at remote locations. A nationally accessible data base system stores features data in association with personal identification numbers.
4,908,852 (Supplemental V)	Hird et al.	03/13/90/ 01/23/89	A telephone system and method of operation which use a microprocessor control system (10), a speech generator (34) and speech memory (46) to automatically place calls without the need of a live operator.

<u>U.S. Patent No.</u>	<u>Inventor</u>	<u>Issue Date/ Filing Date</u>	<u>Comments</u>
4,922,519 (Supplemental V)	Daudelin	05/01/90/ 09/30/88	The class of an operator assistance call is identified in order to reduce the operator work time for servicing such a call. A customer dials 0 or dials 0 plus a directory number and is connected to a program controlled operator assistance system or switch. The switch initially connects the calling customer to a voice processing unit and prompts the customer to speak a command or key a command code. The command or command code is recognized and used to direct the flow of the control program to selectively defer a connection to an operator position. For example, for person-to-person calls, the operator position is only connected after the called customer terminal answers.
4,933,965 (Supplemental V)	Hird	06/12/90/ 01/23/89	A telephone system and method of operation are described which use a microprocessor control system, a speech generator and speech memory to interact with a calling party placing a long distance phone call. The telephone determines the validity of the billing account number and, if the billing account number is valid, a communication path is established through a telephone line interface. Valid billing account numbers are stored in the telephone for a predetermined period of time. The stored numbers are polled prior to the validation process to determine if an entered number has already been validated. In this manner, a calling party making multiple calls with the same billing account number need only wait for his account number to be verified once.
4,989,234 (Supplemental V)	Schakowsky et al.	01/29/91/ 04/11/89	A system for capturing telephonic mass responses that automatically receives calls of recipients crossing their telephone sets to respond to the broadcast promotion, electronically capturing the subscriber telephone numbers of the telephone sets through which these calls are made, and automatically confirming to all callers while on line during these calls that these calls have been received.
5,036,535 (Supplemental V)	Gechter et al.	07/30/91/ 11/27/89	An automatic call distributing system for automatically distributing telephone calls placed over a network to one of a plurality of agent stations connected to the network.

<u>U.S. Patent No.</u>	<u>Inventor</u>	<u>Issue Date/ Filing Date</u>	<u>Comments</u>
5,199,062 (Supplemental V)	Von Meister et al.	03/30/93/ 11/08/91	A telephone communication system with a telephone switch having a plurality of incoming and outgoing lines for switching calls, an audio response unit, and a central processing unit for executing a stored program sequence based upon the audio communication received by the voice response unit to control both the voice response unit and the telephone switch. (later filed patent)
5,222,120 (Supplemental V)	McLeod et al.	06/22/93/ 04/23/90	A long distance telephone switching system that provides various enhanced subscriber services, such as on audio news and information service etc. (later filed patent)
5,299,260 (Supplemental V)	Shaio	03/29/94/ 07/29/93	A telephone call handling system. (later filed patent - not prior art)
5,303,298 (Supplemental V)	Morganstein	04/12/94/ 09/14/92	An automated attendant call processor. (later filed patent)
5,303,299 (Supplemental V)	Hunt et al.	04/12/94/ 06/22/92	A method for continuous recognition of alphanumeric strings spoken over a telephone network. (later filed patent)
5,354,069 (Supplemental V)	Guttman et al.	10/11/94/ 01/21/92	A lottery simulation system. (later filed patent)
5,418,844 (Supplemental V)	Morrissey et al.	05/23/95/ 04/17/92	An automatic access to information service provider. (later filed patent)

Foreign Patents:

<u>Patent No.</u>	<u>Country</u>	<u>Public. Date</u>	<u>Comments</u>
0 217 308 B1 (Supplemental V)	EPC	4/1987	An ANI facility is used to order pay-per-view programs.
0 249 795 B1 (Supplemental V)	EPC	12/1987	(Specification in German) Method for PBX use, with computer controlling access with regard to time and per a code as assigned to callers. Does not appear to be pertinent.
2 575 016 (Supplemental V)	France	07/1986	(Specification in French) A telephone communication system involving deposit of money (see Fig. 1).
WO 82/02132 (Supplemental V)	PCT	06/1982	In a PBX installation, individual stations can transfer to another station assisted by a bank of telephone answering machines.

Other Documents:

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
Dial Info Articles (various articles with various dates) (R0016101-R0016188) (Supplemental V)	mid-1980's	Some hundred pages of cryptic "stories" reporting telephonic related events, apparently from internet searching and dated in the mid-eighties.
Svigals, J., "Security Method For Remote Telephone Banking," IBM Technical Disclosure Bulletin, Vol. 23, No. 12, May 1981, pp. 5306-5307 (pb424) (Supplemental V)	May 1981	An encryption technique is disclosed for secure numerical entries by telephone.
AT&T Conversant Voice Response Systems Historical Overview, January 1988 (FD 023585-FD023596) (Supplemental V)	January 1988	Describes the "Conversant" system and various general uses, e.g. reservations and ordering.
"All About Automated Attendant Systems," Datapro Research Corporation, March 1987 (SM 1000682-SM 1000691) (Supplemental V)	March 1987	An early use of DID with rotary operation to take an automated response.
"New Product - Dytel's Automated Switchboard Attendant," reprinted from Business Communications Review, March-April 1984, pp. 39-41 (SM10006976-SM1000699) (Supplemental V)	March-April 1984	Dytel's unit interfaces received calls to a PBX Uses DID line allocation.
Arbogast, James G. et al., "Home Diabetes Monitoring Through Touch-Tone Computer Data Entry and Voice Synthesizer Response," Annual Symposium on Computer Applications in Medical Care 8 th Care Proceedings - Eighth Annual Symposium on Computer Applications in Medical Care, 1984 (MMI 020731) (Supplemental V)	1984	Telephonic access to a database as to monitor blood sugars. Does not appear to be pertinent.
Perdue, Robert J., et al., "AT&T Voice Processing System Architectures," AT&T Technical Journal, September/October 1990, pp. 52-60 (MMI 024142-MMI 024151) (Supplemental V)	September/October 1990	"Conversant" is described in voice response applications as for voice mail use.
Sable, E.G., et al., "AT&T Network Services Architecture Capabilities, Administration and Performance," AT&T Technical Papers, International Switching Symposium-ISS '87, AT&T Network Systems, March 15, 1987 (Supplemental V)	March 15, 1987	The 1984 introduction of Direct Services Dialing Capabilities (DSDC) Architecture to accommodate 800 service and caller interface operations. At best, offers historical background.
"The Stored Program Controlled Network"	September	A number of articles from the Journal were

Title of Article/Publication	Date	Comment
The Bell System Technical Journal, September 1982 (Supplemental V)	1982	<p>provided as follows.</p> <p>(1) Prologue, pp. 1575</p> <p>Stored Programmed Controlled (SPC) network structure accommodates computer interface with callers. Only of historical significance.</p> <p>(2) Overview, pp. 1579</p> <p>In accordance with Stored Programmed Controlled network operation, considerable flexibility is described in signaling and network intelligence. Apart from historical significance, not pertinent.</p> <p>(3) Generic Network Plan, pp. 1589</p> <p>A model for a stored program controlled network accommodates network capabilities with caller control. No significance, other than historical, is apparent.</p> <p>(4) Routing of Direct-Signaling Messages..., pp. 1599</p> <p>A form of "direct signaling" enhances stored program control operations with improved routing and flow control procedures. Only historical significance is perceived.</p> <p>(5) Calling Card Service-Overall Description..., pp. 1655</p> <p>To accommodate credit card, collect and bill-to-third-number service, a system is described accommodating DTMF input from callers.</p> <p>(6) Calling Card Service-TSPS Hardware..., pp. 1675</p> <p>The Traffic Service Position System (TSPS) accommodates caller-computer interface with voice cues to callers and DTMF signaling from callers. At best, appears to have historical significance.</p> <p>(7) Calling Card Service..., pp. 1715</p>

Title of Article/Publication	Date	Comment
		<p>New telephone systems accommodate enhanced computer telephonic interface as for credit card use, billing and so on. At best, of historical interest.</p> <p>(8) 800 Service Using SPC Network Capability, pp. 1737</p> <p>Expanded 800 service accommodates increased use, improved routing and call processing. Again, of historical interest.</p> <p>(9) 800 Service Using SPC Network Capability-Network Implementation..., pp. 1745</p> <p>Expanded 800 service accommodates effective network capability, thereby affording improved caller services.</p> <p>(10) Data Base Administration System-Overall Description..., pp. 1759</p> <p>Stored Program Controlled (SPC) network operations afford improved data capabilities in the realm of customer interfaces. Again, of historical interest.</p> <p>(11) Data Base Administration System-Architecture..., pp. 1779</p> <p>An improved data base administration system accommodates considerable improvement in computer-telephone interface. Of historical interest only.</p> <p>(12) Acronyms and Abbreviations, pp. 1799</p> <p>A glossary of acronyms and abbreviations is set forth; however, with very little in the way of definition. Accordingly, no pertinence is noted.</p>
The World's Telephones, a Statistical Compilation as of January 1980, AT&T Long Lines, 1981 (Supplemental V)	1981	Statistical information on the historical use of telephones.
Engineering and Operations in the Bell System, AT&T Bell Laboratories, 1983 (Supplemental V)	1983	The table of contents for the book involving some 800 pages, was apparently provided with no specific indications. Apparently, the

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
		book describes the history, substance, and operations of the Bell System. No real pertinence found.
Joel, A.E., "A History of Engineering and Science in the Bell System, Switching Technology (1925-1975)," Bell Telephone Laboratories, 1982 (Supplemental V)	1982	Only the contents of a book (some 600 pages) was identified. Based on the contents, the book describes certain switching and routing operations of the system along with historical considerations. No real pertinence was identified by defendants nor is seen by prosecution counsel.
"ISDN - Proceedings of the conference held in San Francisco, November 1986," OnLine, New York: London (Supplemental V)	November 1986	Southern Bells ISDN system accommodates a variety of services as automatic call back, call return, call block, call tracing and so on, none of which appear to be pertinent.
Raack, G.A., et al., "Customer Control of Network Services," IEEE Communications Magazine, October 1984 (A21717089) also ISS 84, Florence Italy, May 1984 (Supplemental V)	May 1984	Telephone company customers are enabled a number of services by stored program operations under their control.
Soderberg, J.H., "Machines at your Fingertips," Bell Laboratories Record, July 1969 (A21717175) (Supplemental V)	July 1969	Early forms of CIT operations are described involving voice cues and DTMF signaling.
Gawrys, G.W. et al., "A New Protocol for Call Handling Functions for the SPC Network," Globecom '82 Conference Record, November/December 1982 (Supplemental V)	November/December 1982	Direct Services Dialing (DSD) supports expanded services. However, does not appear to be relevant to the claims.
Buss, C.M., "Tuning the Human/Machine Interface for AT&T Advanced 800 Service," IEEE, July 1985 (Supplemental V)	July 1985	Human characteristics in relation to CTI are considered as with regard to cues and signaling.
Asmuth, R.L., et al., "Transaction Capabilities for Network Services," Globecom '85 IEEE Global Telecommunications Conference, New Orleans, December 1985 (Supplemental V)	December 1985	Various capabilities of telephone company operations are indicated with potential operations.
Mahood, Gerald K., "Human Factors in TOUCH-TONE Data Systems," Bell Laboratories Record, December 1971 (A21717170) (Supplemental V)	December 1971	A study of data entry. No real pertinence located.
"4 ESS System Evolution," Bell System Technical Journal, August 1981 (Supplemental V)	August 1981	Background and evolution of the "4 ESS System." Other related article cited during prosecution of this application and related patents.

From Prosecution:

Foreign Patents:

<u>Patent No.</u>	<u>Country</u>	<u>Public. Date</u>	<u>Comment</u>
2 252 270 B (Supplemental VI)	U.K.	08/1992	('91) A scratch-off telephone card has a number that is verified by a computer to establish a value for consumption by use.

Other Documents:

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
Friedes, A., et al., "ISDN opportunities for large business - 800 service customers," IEEE International Conference on Communications '86, June 22-25, 1986, Vol. 1, pp. 28-32 (Supplemental VI)	June 22-25, 1986	ISDN capabilities as enabling 800 routing and increased customer control are described which use two "networks," one for call transport and one for signaling. ANI is discussed. D-channel information sharing is discussed, as to route calls, collect data on the waiting queue size, screen hackers with ANNIE, select data transmission paths, identify and selectively treat callers, based on called number, redirect calls.
Allyn, Mark R. et al., "Planning for people: Human factors in the design of a new service," Bell Laboratories Record, May 1980, pp. 155-161 (Supplemental VI)	May 1980	A test automated credit card service is described which tested various protocols from the perspective of human factors, e.g. announcements, custom response time, errors, etc.
Hanson, Bruce L., et al., "No. 1A VSS New custom calling services," Bell Laboratories Record, June 1980, pp. 174-180 (Supplemental VI)	June 1980	Call routing in an answering system with various tests and directions.

CHART A1 (Supplemental VA)

<u>U.S. Patent No.</u>	<u>Inventor</u>	<u>Issue Date/ Filing Date</u>	<u>Comments</u>
3,553,378 (Supplemental VA)	Solomon, et al.	01/1971	Data bank access by telephone wherein, on connection, caller is given a dial tone to cue for dialing identity of desired information. Proper dial pulses fetch desired data, then connection is opened.
3,829,628 (Supplemental VA)	Tripsas	08/1974	A system for testing the ANI, as it is used for billing purposes, to indicate failures for a test person.

<u>U.S. Patent No.</u>	<u>Inventor</u>	<u>Issue Date/ Filing Date</u>	<u>Comments</u>
4,565,903 (Supplemental VA)	Riley	01/1986	System routes inter-exchange calls to a specific carrier based on signals dialed by a caller or by reference to a memory associated with the calling link.
4,581,486 (Supplemental VA)	Matthews, et al.	04/1986	Voice message system for a PBX also affording limited access to "non-users" under control of a user. A group of select message addresses can be designated to receive a message collectively. Group members may reply which replies go to all the group members.
4,750,199 (Supplemental VA)	Norwich	06/1988	From a cluster of telephone instruments (as a group of a PBX) when a frequently-dialed number is called (as to a credit service) before termination, other instruments in the group are polled to determine if they want the connection (saves connection charge).
4,761,807 (Supplemental VA)	Matthews, et al.	08/1988	Voice mail system interconnects multiple PBXs of subscribers with controls for "on net" or "off net" use by subscribers. Users can leave messages or check for messages with password. Users are cued by recorded messages. User voice characteristic features to qualify along with ID codes.
4,782,519 (Supplemental VA)	Patel, et al.	11/1988	Central office system uses ANI to ID callers, then if call requires extended service (as requiring equal access) the fetched data is used to route the call.
4,785,473 (Supplemental VA)	Pfeiffer, et al.	11/1988	Voice message system accommodates DTMF commands. Messages are stored in portions or segments for greater flexibility.
4,799,255 (Supplemental VA)	Billinger, et al.	01/1989	System uses ANI to keep a record of unauthorized communication attempts and limiting such to a predetermined number. Purpose is to block an illicit caller using various codes until a hit is accomplished.
4,856,066 (Supplemental VA)	Lemelson	08/1989	Spoken words generate codes which address a memory to record or fetch messages which are composed of spoken words. Codes are identified by computer.
4,932,021 (Supplemental VA)	Moody	06/1990	Repeated entry of commands to define a path to access a service, results in storing the path and offering it to the user as a "short cut" to the service.
4,951,307 (Supplemental VA)	Willard	08/1990	Telephone answering machine offers a touch tone choice of persons to receive message.
4,959,855 (Supplemental VA)	Daudelin	09/1990	In a directory assistance system, caller is offered the option of the located number being dialed.

<u>U.S. Patent No.</u>	<u>Inventor</u>	<u>Issue Date/ Filing Date</u>	<u>Comments</u>
5,033,076 (Supplemental VA)	Jones, et al.	07/1991	ANI number display at called station along with call screening.
5,033,088 (Supplemental VA)	Shipman	07/1991	In a speech recognition system, if speech is not recognized after two inputs, a recorded form is delivered to an operator, possibly for input to further the task.
5,054,059 (Supplemental VA)	Stern, et al.	10/1991	A telephone interface system for specialized installations (hospital, etc.) incorporating select control functions.
5,125,024 (Supplemental VA)	Gokcen, et al.	06/1992	Telephone interface with interruption of a cue in transmission by a caller, prompting the next cue.
5,148,474 (Supplemental VA)	Haralambopoulos, et al.	06/1992	In a value-added operation, caller can bill to another number, also ANI screen pop.
5,164,981 (Supplemental VA)	Mitchell, et al.	11/1992	Caller who is denied access to host system is transferred to operator who also received a display of the contents of a "transaction memory". In view of the elements in applicant's claims involving operator displays and the priority dates, the reference is not pertinent.
5,168,548 (Supplemental VA)	Kaufman, et al.	12/1992	In a speech recognition system, input is reduced to image data for fax transmission.
5,179,585 (Supplemental VA)	MacMillan, Jr., et al.	01/1993	A voice message system uses modules for different operations, e.g. bulletin board, voice mail, networking, etc.
5,181,236 (Supplemental VA)	LaVallee, et al.	01/1993	Messaging system with message delivery and telephone number notice for call return.
5,186,471 (Supplemental VA)	Vancraeynest	02/1993	Gaming system uses PTMF both for remote station and central to facilitate a match test.
5,214,689 (Supplemental VA)	O'Sullivan	05/1993	A transportation information system that searches memory to locate "closest" trip to the time specified by a telephone inquiry.
5,236,199 (Supplemental VA)	Thompson, Jr.	08/1993	A system for using a conventional telephone keypad to simulate a mouse, joy stick and so on, for interface use.
5,289,531 (Supplemental VA)	Levine	02/1994	A scheduling system for appointments by telephone (interactive) whereby time slots are filled by computer.
5,327,554 (Supplemental VA)	Palazzi, III, et al.	07/1994	System uses telephone and television receiver to facilitate interactive communication with a host computer.
5,361,295 (Supplemental VA)	Solomon, et al.	11/1994	An interactive telephone system buffer for interfacing parties without revelation of their telephone numbers. Uses DID embedded in used number.

<u>U.S. Patent No.</u>	<u>Inventor</u>	<u>Issue Date/ Filing Date</u>	<u>Comments</u>
5,369,685 (Supplemental VA)	Kero	11/1994	A personal voice activated telephone directory uses network storage with verified access to reveal telephone numbers.
5,416,830 (Supplemental VA)	MacMillan, Jr., et al.	05/1995	For voice messaging, modules (bulletin board, voice mail, networking, etc.) are used to process voice.
5,511,112 (Supplemental VA)	Szlam	04/1996	Outbound call processor schedules calls for agents according to rank and priority.
5,537,143 (Supplemental VA)	Steingold, et al.	07/1996	For use with a television receiver and a telephone, the system enables interactive communication in a gaming format.
5,561,710 (Supplemental VA)	Helms	10/1996	A device for providing alphanumeric representations from a keypad that generate DTMF signals in sequences.
5,623,536 (Supplemental VA)	Solomon, et al.	04/1997	Another anonymous interface system per 5,361,295
5,651,048 (Supplemental VA)	Leeuw	07/1997	A switching arrangement with a charge circuit to control state.
5,768,348 (Supplemental VA)	Solomon, et al.	06/1998	Another anonymous patent, see '536 and '295.

Foreign Patents:

<u>Patent No.</u>	<u>Country</u>	<u>Public. Date</u>	<u>Comment</u>
1162484 (Supplemental VA)	Great Britain	04/1967	Central office call blocking by storing connections to be blocked.
WO 89/11768 (Supplemental VA)	PCT	11/1989	A caller identification system (ANI) for use as to block calls from defaulted lines.
WO 90/10989 (Supplemental VA)	PCT	09/1990	Infraction retrieval system using fax communication and DTMF.
WO 90/11661 (Supplemental VA)	PCT	10/1990	Catalog ordering system: callers telephone number (buyer ID), called telephone number (seller ID), and product number (product) are communicated to seller as an order.
WO 91/15818 (Supplemental VA)	PCT	10/1991	System for telephonically accessing a data base using telephone and fax.
WO 92/06548 (Supplemental VA)	PCT	04/1992	An audio response system wherein a plurality of audio units (ARUs) are controlled by a central command apparatus.
WO 92/09164 (Supplemental VA)	PCT	05/1992	An interactive system for routing or assigning and re-assigning calls to different agents based on caller-entered commands.
WO 92/15166 (Supplemental VA)	PCT	09/1992	A voice message system is enhanced with a program for handling incoming calls and using received network information.
2253542 (Supplemental VA)	Great Britain	09/1992	A system for accommodating connections for extension telephones and using authorization codes.
EP 0 382 212 B1	EPC	07/1998	A multimedia communication system

<u>Patent No.</u>	<u>Country</u>	<u>Public. Date</u>	<u>Comment</u>
(Supplemental VA)			(telephone, fax, etc.) with economy of time and clear operation cues.
EP 0 382 670 B1 (Supplemental VA)	EPC	04/1997	Interface operation sequence is controlled by a "state" register ("Play prompt", "get key", "wait for call", etc.) which implements actions and advances.
EP 0 438 860 B1 (Supplemental VA)	EPC	09/1996	Call blocking method.
0 451 693 A2 (Supplemental VA)	EPC	10/1991	Selectively controlling access to network services based on subscriber or non-subscriber.
0 451 695 A2 (Supplemental VA)	EPC	10/1991	Controlled access to telephone services based on voice recognition templates.
0 453 831 A2 (Supplemental VA)	EPC	10/1991	Control of telecommunications access based on voice spoken phrases.
0 454 363 A2 (Supplemental VA)	EPC	10/1991	Telecommunications access control based on speech recognition.

CHART B (SUPPLEMENTAL VII)

Foreign Patents:

<u>Patent No.</u>	<u>Country</u>	<u>Public. Date</u>	<u>Comment</u>
WO 87/00370	PCT Int. Application	01/15/1987	PCT application describing a modulation technique for data transmission (spread spectrum).

Other Documents:

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
Aarons, D., "The Voice of the 80's," PC Magazine, Volume 4, Number 5, March 5, 1985, p. 114 (A21707135) (Supplemental VII)	March 5, 1985	#75, Synthetic speech only.
"ACD 'Magic' from AT&T's Merlin," Telecommunications Product Review, Volume 13, Number 4, April 1986 (A21708371) (Supplemental VII)	April 1986	Call distribution per Merlin and call processing in a very general way, e.g. line status, assignment, queues, time accounting.
"Actor Promotes Phone Services," Hammond Louisiana Star, August 23, 1984 (A21708860) (Supplemental VII)	August 23, 1984	soap opera information is available by telephoning a service in New Orleans. Charges a caller's bill. - "976".
Allerbeck, M., "Experience with the Voice Mail System EMS 2000 Info - Results of an Acceptance Study," ISS '84 Florence, May 1984, Session 14 A, Paper 6, Page	May 1984	EMS 2000 Info - Voice Mail - Receives, stores and transmits spoken messages - PTMF control and voice prompts.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
1 (Supplemental VII)		
Amano, Fumio, et al., "Imagephoe!!: Integrated Voice/Data Terminal With Hand-Drawing Man-Machine Interface," IEEE, 1985 (A03701430) (Supplemental VII)	1985	Non-machine interface discloses a tablet for digitizing drawings and various controls for imaging.
Ambrosio, Johanna, "Electronic and Voice Mail; They're No Match for Each Other-Yet," Computerworld, May 19, 1986, p. 53 (A21708461) (Supplemental VII)	May 19, 1986	1986, Computer world story lines, voice mail, electronic mail.
"American-Network: Files Complaint Against Pacific Northwest Bell," Business Wire, June 4, 1986 (A21708495) (Supplemental VII)	June 4, 1986	Press Release on AmNet suit against Pac. Norwest Bell alleging anti-trust violation.
"American-Network: Signs Letter of Intent to Merge L D Communications Long Distance Service into the Company," Business Wire, August 14, 1984 (A21708856) (Supplemental VII)	August 14, 1984	1984, Press Release re: Am Net, Inc.'s intent to merge with L.D. Comm.
Andrews, Edmund L., "Patents: Computer System Lets TV Audience Join Show," The New York Times, December 24, 1988 (A01331146) (Supplemental VII)	December 24, 1988	Story on FDR re game show; news piece on FDR and RAK.
Arnst, Catherine, Press Release, Reuters, September 16, 1984 (A21708908) (Supplemental VII)	September 16, 1984	Press Release re: voice mail.
"AT&T Announces Major Additions to Telemarketing Products and Services," Telephone News, December 14, 1987 (A21723927) (Supplemental VII)	December 14, 1987	AT&T announces telemarketing products, no detail.
"AT&T; AT&T Announces New Software Enhancements," Business Wire, February 10, 1987 (A21707782) (Supplemental VII)	February 10, 1987	AT&T announces new PBX that is compatible with ISDN.
"AT&T Announces New Software Enhancements for its PBX," PR Newswire, February 10, 1987 (A21707779) (Supplemental VII)	February 10, 1987	Press Release on AT&T software for digital interfaces.
"AT&T Computer System Will Be Produced Here," The Columbus Dispatch, September 9, 1985 (A01354694) (Supplemental VII)	September 9, 1985	News piece on AT&T's Conversant plans for production in Columbus, Ohio.
"AT&T CPU Puts Voice Recog on Any Phone," Article Source Unknown	Unknown	News piece on AT&T Conversant and other systems.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
(A01354681) (Supplemental VII)		
"AT&T Conversant Voice Response System," Information Packet, Date Unknown (Supplemental VII)	Unknown	article on AT&T "Conversant Systems" re: voice responses.
"AT&T's Digital MERLIN," Telecommunications Product Review, Volume 13, Number 7, July 1987 (A21724743) (Supplemental VII)	July 1987	Article on AT&T's "Merlin II" featuring voice/data operations.
"AT&T's Flagship System 75: A Comprehensive Analysis of the System 85's 'Little Cousin,'" Telecommunications Product Review, Volume 11, Number 7, July 1984 (A21724612) (Supplemental VII)	July 1984	Article on AT&T's "System 75" for digital interfaces.
"AT&T Forms Unit to Sell Synthetic Speech Systems," Wall Street Journal, September 10, 1985 (A01354689) (Supplemental VII)	September 10, 1985	News piece on AT&T Conversant systems organization.
"AT&T Plans Computer Unit," The New York Times, September 10, 1985 (A01354690) (Supplemental VII)	September 10, 1985	News piece on AT&T speech recognition system.
"AT&T; Showtime's Viewer's Choice, Viacom Cable and AT&T to Test Pay-Per-View Ordering System," Business Wire, December 5, 1985 (A21708103) (Supplemental VII)	December 5, 1985	Viacom and AT&T release on "Viewers Choice" pay-per-view.
"AT&T Sports Service," PR Newswire, September 24, 1980 (A21710432) (Supplemental VII)	September 24, 1980	Release on "Dial-It" for 900 sports highlights by telephone.
"The AT&T System 25," Telecommunications Product Review, Volume 13, Number 8, August 1986 (A21706368) (Supplemental VII)	August 1986	The AT&T "System 25 voice/data PBX for routing and signaling.
Press Release, PR Newswire, November 1, 1984 (A21708963) (Supplemental VII)	November 1, 1984	AT&T's "System 85" expanded PBX for messaging, ESS interface, etc.
AT&T Technical Journal – The 5ESS Switching System, Volume 64, Number 6, Part 2, July-August 1985 (A21723626) (Supplemental VII)	July-August 1985	AT&T's Technical Journal on the 5ESS switch, with: data management (1364), peripheral control (1370), data access (1365), switching control (1371), administrative services (1375), call processing (1373), and billing (1377). Note 5ESS is the fifth in the series of stored program control units. Digital operation and time-division were implemented in 4ESS. Of course, software could implement many specific features, as call

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		processing, The "Journal" consists of a number of technical papers, however, no pertinence found.
Excerpt from AT&T Technical Journal, September-October 1990, pp. 53-60 (A21723942) (Supplemental VII)	September-October 1990	Part of an article on Conversant hardware and software architecture.
"Automated Switchboard Attendant Helps Insurance Company Control Net Expenses," Communications News, July 1985 (A21726011) (Supplemental VII)	July 1985	Article on an "automated switchboard" replacing operators.
Aversano, Nina, "The Telephone as Computer," Review of Business, Fall 1989, p.5 (A21723928) (Supplemental VII)	Fall 1989	A lay article on voice response and computer interface.
Ayres, Paul, "Voice Response Pay-By-Phone Matures," Computerworld, November 9, 1979, p. 47 (A21725960) (Supplemental VII)	November 9, 1979	News article on pay-by-phone using voice response to form a record of payment.
Baker, Janet M., "Voice-Store-And-Forward: The Voice Message Medium," Speech Technology, August-September 1984 (A21724633) (Supplemental VII)	August-September 1984	An introductory comment on the function of voice messaging and speech recognition.
Bakke, Bruce B., "Electronic Voice Mailbox: Potential for Fast Growth," BC Cycle, June 29, 1984 (A21708785) (Supplemental VII)	June 29, 1984	Gordon Matthews conceives of voice mail and the formation of VMX, Inc.
Bakke, Bruce, B., "GTE's 'Voice Mailboxes' Page the World," U.P.I., April 11, 1983 (A21713359) (Supplemental VII)	April 11, 1983	A form of voice mail implemented in Texas by GTE is described.
Barbetta, Frank, "AT&T Offers Digital PBX Enhancements," Electronic News, Volume 30,, November 5, 1984, p. 69 (A21708967) (Supplemental VII)	November 5, 1984	AT&T's "System 85" (PBX) upgrades are described. Software packages and enhanced structure is identified.
Barbetta, Frank, "Custom Functions Offered in New AT&T Co. Package," Article Source Unknown (A21726008) (Supplemental VII)	Unknown	Article on AT&T's "LASS" available on the IAESS switch to enhance calling functions, e.g. call tracing, call transfers, redial, etc.
Barkauskas, B. J., et al., "Network Services Complex: A Generalized Customer Interface to the Telephone Network," IEEE International Conference on Communications, Conference Record, Volume 2, June 1983, p. 805 (A21725715) (Supplemental VII)	June 1983	(Incomplete) Network Services Complex is described with 4ESS switches to conference users.
Barlin, David, "Switch-Hitter: A Data Man's Guide to the World of Voice," Data	October 1984	Story on PBX managers, their areas and interests. Also summarily treats PBX

Title of Article/Publication	Date	Comment
Communications, October 1984, p. 114 (A21708926) (Supplemental VII)		products of several companies.
Basso, Richard J., et al., "Expanding the Capabilities of the ? Traffic Service Position System," Bell Laboratories Record, February 1983, pp. 22-27 (A21724556) (Supplemental VII)	February 1983	Article on "operator" replacement computers; Processor and peripherals are treated.
Belcher, Jerry, "Earthquakes in Mexico; U. S. Relief Includes Hardware, Experts; Cash Aid Suggested," Los Angeles Times, September 22, 1985 (A21708026) (Supplemental VII)	September 22, 1985	Story on Mexican earthquake relief.
"Bell Files Tariffs on CO-Based Switching System in PA.," Communications, Date Unknown (A21725944) (Supplemental VII)	Unknown	Article on Bell re: potential for data processing.
Bell Laboratories Record, August 1984, Cover Page and Table of Contents (A21708811) (Supplemental VII)	August 1984	Cover pages of AT&T publication "RECORD"; no pertinence found
The Bell System Technical Journal, May-June 1982 (A21709814) (Supplemental VII)	May-June 1982	Bell Technical Journal, (61) includes articles on Human Performance Engineering and voice storage. Probably basis for selection but still not pertinent. Note descriptions of "voice-mail" type operators.
Excerpt from The Bell System Technical Journal, October 1980, pp. 1384-1395 (Supplemental VII)	October 1980	Part of an article (1980) perhaps from the Bell Technical Journal on speech storage (pp. 1384-1392)
Bertoglio, O., et al., "An Interactive Procedure for Voice Messaging Services in a Traditional Network," CSELT Technical Reports, Volume 12, Supplement 10, Number 3, June 1984 (A21708755) (Supplemental VII)	June 1984	Article on aspects of voice messaging.
Bingham, Sanford, "Groceries By Phone," Inbound/Outbound, August 1988 (A21725728) (Supplemental VII)	August 1988	Article on interactive system for ordering groceries from home.
"Some Tips on Integration," Inbound/Outbound, August 1988 (A21725731) (Supplemental VII)	August 1988	Article on Data Management generally for telephone interface systems.
Black, Philip, "How ISDN Services Could Make or Break the Big Network," Data Communications, June 1984, p. 247 (A21708771) (Supplemental VII)	June 1984	Article on ISDN – 1984 (Integrated Services Digital Network).

Title of Article/Publication	Date	Comment
"Blast' from Data Systems Runs Under DG's AOS/VS," Computerworld, May 3, 1982, p. 38 (A21724423) (Supplemental VII)	May 3, 1982	Story on a computer interface software.
Booker, Ellis, "How to Save Big Bucks on Phone Calls," Computer Decisions, Volume 16, November 15, 1984, p. 16 (A21708983) (Supplemental VII)	November 15, 1984	Story on PABX and call recording services.
Borchering, J. W., et al., "Customized Switching Systems," ISS '84 Florence, May 1984, Session 14 A, Paper 4, pp. 1-5 (A21725533) (Supplemental VII)	May 1984	AT&T article on switching systems, specifically 5ESS and benefits of customized operators.
Bowling, Tom, "Pay TV: A Pay-Per-Minute System Prototype," Television: Journal of the Royal Television Society, March-April 1984, pp. 79-83 (A21724588) (Supplemental VII)	March-April 1984	Description of Pay TV based on scrambling operators, decoding by: mail requests, telephone operators, cable communication, pay-per-minute.
Brady, Erik, "Players, Fans Get Back in the Swing," USA Today, Date Unknown (A21706710) (Supplemental VII)	Unknown	Strike ends.
Brady, Erik, "Resentful Fans Verbally Strike Back," USA Today, Date Unknown (A21706709) (Supplemental VII)	Unknown	newspaper piece on baseball strike, no pertinence.
Brooke, Jill, "A Hi-Tech Interactive TV Service is Planned," New York Post, January 20, 1989 (A01331148) (Supplemental VII)	January 20, 1989	News piece on FDR Interactive operations, as for promotions and sales.
Brown, Jim, "Contracts; Rolm Wins College Bid," Network World, March 9, 1987, p. 4 (A21707859) (Supplemental VII)	March 9, 1987	Columbia University signs with IBM/Rolm for new Telephone Switch.
Brown, Jim, et al., "ICA Preview; AT&T May Steal Show," Network World, May 26, 1986, p. 1 (A21708473) (Supplemental VII)	May 26, 1986	AT&T announces ISDN, ACD services and a new PBX.
Brown, Jim, "PBX Market; Rolm Beefs up CBX Line Capacity," Network World, February 9, 1987, p. 4 (A21707777) (Supplemental VII)	February 9, 1987	Rolm Corp's new switch.
Brown, Jim, "VMX 5000 Series; Voice Messenger Debuts," Network World, October 13, 1986, p. 6 (A21706653) (Supplemental VII)	October 13, 1986	VMX, Inc. announces voice messaging system.
Brown, Jim, "Voice Mail; Rolm to Accounce New Low-Cost Phonemail," Network World, February 2, 1987 (A21707763)	February 2, 1987	Rolm Corp.'s new phonemail.

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(Supplemental VII)		
Buckhout, Wayne, "Columbus-Born AT&T Computer Listens, Talks and Shows Promise," Article Source Unknown, September 10, 1985 (A01354692) (Supplemental VII)	September 10, 1985	News piece on AT&T interface computer in Columbus, Ohio (Conversant).
Bulfer, Andrew F., et al., "A Trial of a National Pay-Per-View Ordering and Billing System," NCTA, 1986 (A21724669) (Supplemental VII)	1986	AT&T's pay per view.
Burstyn, H. Paris, "Phone Features: The Next Wave," High Technology, June 1986 (A21726009) (Supplemental VII)	June 1986	an article on computerized switches, and offerings as call blocking, call forwarding, caller i.d., etc.
Capital Cities/ABC Video Enterprises, Inc. Teams with FDR Interactive Technologies to Explore Applications for New Telephone Technology," Capital Cities/ABC, Inc. Broadcast Group, January 19, 1989 (A01331147) (Supplemental VII)	January 19, 1989	Story on FDR-ABC agreement.
Carlson, Rolf, et al., "Text-To-Speech conversion in Telecommunications," Proceedings of the Tenth International Symposium on Human Factors in Telecommunications, June 1983, pp. 239-245 (A21725801) (Supplemental VII)	June 1983	Text-to-Speech article limited to text-to-speech substance.
Press Release, PR Newswire, December 5, 1985 (A21708106) (Supplemental VII)	December 5, 1985	Pay-per-view; uses ANI but no other details provided for phone system that can use rotary dialing.
Chapin, Dwight, "A Kids' Game," Article Source Unknown (A21706674) (Supplemental VII)	Unknown	Updated news article on telephone baseball game.
Charlish, Geoffrey, "Telephone Message that Failed to Get Across to the U. K.," Financial Times, (A21708203) (Supplemental VII)	January 16, 1986	Basic phone mail system takes messages.
Collins, Francis R., "Reality of Equal Access: Implementation Problems," Telephone Engineer & Management, Volume 88, September 1, 1984, p. 128 (A21708884) (Supplemental VII)	September 1, 1984	Story on "equal access" as may be required of AT&T.
"Company News: Phone Service to be Tested," The New York Times, January 20, 1989 (A01331395) (Supplemental VII)	January 20, 1989	Story on FDR service.
"Components," Electronic News, 1984	1984	Electronic News Sheet, no relevance is

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
(A21726007) (Supplemental VII)		perceived.
"Computerized Telecommunications Switching Systems," Article Source Unknown (Supplemental VII)	Unknown	Voice response for PBX use is considered.
Connolly, James, "Republican Convention Set to Test Telecommunications," Computerworld, July 9, 1984, p. 17 (A21708804) (Supplemental VII)	July 9, 1984	1984 article on phone system for political conventions, not pertinent.
Conroy, Cathryn, "Audiotex Arrives," Monitor, Date Unknown (W71189) (Supplemental VII)	Unknown	Introductory article on audiotex telephone interface equipment.
"Corporate Preoccupation with Costs Spurs Telephone Management Sales," Computerworld Focus, May 14, 1986, p. 13 (A21708457) (Supplemental VII)	May 14, 1986	Telephone management systems are considered – no pertinence.
Cox, John D., "Talk Into Telephone, Command a Computer," The Sacramento Bee, September 10, 1985 (A01354683) (Supplemental VII)	September 10, 1985	News piece on AT&T speech processing and computer interface technology.
"CPU, PBX Vendors Drawing Alliances," Computerworld, April 23, 1984, p. 15 (A21708674) (Supplemental VII)	April 23, 1984	Article predicts marriage of computers and voice/data telephone exchanges.
Crawford, K. E., et al., "4A Toll Crossbar Application," The Bell System Technical Journal, Volume 57, Number 2, February 1978, pp. 283-323 (A21716223) (Supplemental VII)	February 1978	1977- Early article on software controlled telephone switches, call processing (p. 301) not pertinent.
Croxall, L. M., et al., "Operational Experience with the 5ESS™ Switch," ISS Florence, Session 42 A, Paper 4, May 1984 (A21725550) (Supplemental VII)	May 1984	AT&T article on the 5ESS stored program switch (1984), not pertinent.
Cummings, Steve, "Voice-Mail Systems Attract Tentative Interest," PC Week, Volume 3, Number 49, December 9, 1986, p. 140 (A21707565) (Supplemental VII)	December 9, 1986	Glowing report on voice mail systems, e.g. Vynet.
Curtis, Janice, "At a Turning Point, VMX Makes Moves to Boost Voice Messaging Business," Dallas Business Courier, Volume 2, Number 13, Section 1, July 14, 1986, p. 19 (A21706328) (Supplemental VII)	July 14, 1986	Voice mail article (VMX) (Matthews Patent).
Daniel, Heidi C., "Inventor Battles Computer Giants," South Florida Business Journal, August 12, 1985	August 12, 1985	Report on voice mail system (Elkins) as asserted in a patent case.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
(A21707969) (Supplemental VII)		
Press Release, Communications Daily, Volume 4, Number 177, September 11, 1984, p. 7 (A21708903) (Supplemental VII)	September 11, 1984	Re telecommunications report tracks personnel movements.
Danner, Patrick, "Dial Info Charges Electronics Giant Disconnected Deal," San Francisco Business Times, Volume 2, Number 33, April 18, 1988 (A21724767) (Supplemental VII)	April 18, 1988	Report on: a survey directed to call processing, EDS suit on voice response contract, and sports celebrities.
Excerpt from Data Communications, September 1985, pp. 399-410 (A21707991) (Supplemental VII)	September 1985	AT&T new products, specifically re PBX units.
Davis, Judith R., "Voice Messaging Systems," Patricia Seybold's Office Computing Report, Volume 10, Number 9, p. 1-28 (A21716964) (Supplemental VII)	Unknown	Office computing report – 1987, treats voice mail, it's growth, functions, and history from Matthews, details information retrieval (p. 7) along with players, market and user experience.
Day, J. F., et al., "Networking Voice and Data with a Digital PBX," AT&T Technology, Date Unknown (A21707584) (Supplemental VII)	Unknown	AT&T technology – 1987 – networking with a digital PBX; mentions ANI to access a database (caller ID). Not pertinent.
Whitten, W. B., II, "Advanced Interfaces Speed Delivery of Services," AT&T Technology, Date Unknown (A21707593) (Supplemental VII)	Unknown	Article: AT&T is delivering service management systems that are flexible and easy to use involving the human-computer interface.
"Definity Announcement Includes Other New Products," Telecommunications Product Review, Volume 16, Number 3, March 1989 (A21712758) (Supplemental VII)	March 1989	Telcom product review discusses new station instruments (analog and digital telephones).
DeLessio, N. X., et al., "An Integrated Operator Services Capability for the 5ESS System," ISS '84 Florence, May 1984, Session 22 C, Paper 3, Page 1-5 (A21725538) (Supplemental VII)	May 1984	Paper on operator services for 5ESS – May 1984 – discusses operator services using 5ESS system and various terminals, however still manual.
Desmond, Paul, "Patented Call-Routing Tool Boon for Retail Industry; Instalink Will Use ISDN for Automatic Number ID," Network World, August 1, 1988 (A21712653) (Supplemental VII)	August 1, 1988	Article on the Riskin patent on call routing per ANI.
"Dial-A-Drill," The New York Times, January 20, 1969 (A21725951) (Supplemental VII)	January 20, 1969	New York City students participate in an experiment using telephones to test, e.g. "What is four plus two?" Correct answers prompt another question, wrong answers prompt repeat – record is made.
"Dialing for Pennies," California Living	August 12,	Magazine article reveals that 976 line gets

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Magazine, August 12, 1984 (A21708855)	1984	pre-recorded messages at 35 cents a call.
"Distributed Data Processing and Messaging Systems," Data Communications, May 1986, p. 105 (A21708428) (Supplemental VII)	May 1986	Article lists data processing and messaging systems available – appears quite comprehensive.
Dix, John, "AT&T Breathes New Life into its Switch-and-Wire Beast," Network World, October 27, 1986, p. 1 (A21706662) (Supplemental VII)	October 27, 1986	News article on AT&T use of ISDN to facilitate voice-data communication; stories on AT&T related subjects, specifically: ISDN is coming, expanded PBX operations, enhanced network services, voice messaging and data accommodations.
Dix, John, "AT&T Tries Different Tack," Computerworld, November 25, 1985, p. 19 (A21708097) (Supplemental VII)	November 25, 1985	Story on AT&T coupling for peripherals.
Dix, John, "AT&T Unleashes 'Gazelle,'" Computerworld, April 30, 1984, p. 2 (A21708710) (Supplemental VII)	April 30, 1984	AT&T introduces a voice/digital PBX.
Dix, John, "Enhancements Out for AT&T's High-End PBX," Computerworld, November 12, 1984, p. 99 (A21708970) (Supplemental VII)	November 12, 1984	Story on AT&T's high end PBX, as for voice mail.
Brown, Jim, "VMX 5000 Series: Voice Messenger Debuts," Network World, October 13, 1986, p. 6 (A21706653) (Supplemental VII)	October 13, 1986	Story on AT&T's high end PBX, as for voice mail.
Dix, John, "Ford Motor Co.; Driving Down Costs with Voice Mailboxes," Network World, July 14, 1986, p. 32 (A21706326) (Supplemental VII)	July 14, 1986	Story on Ford Motor using voice mail.
Dix, John, "'Hello, This is a Voice Mail Recording,'" Network World, July 14, 1986, p. 1 (A21706331) (Supplemental VII)	July 14, 1986	Story on voice mail possibilities and human engineering.
Dix, John, "Rolm; Long-Awaited Redwood to Debut at ICA Today," Network World, June 2, 1986, p. 4 (A21708493) (Supplemental VII)	June 2, 1986	Story on Rolm Corp.'s telephone switch for use as a key system or PBX.
Dix, John, "Switch Management: DEC Tools Debut at ICA," Network World, June 9, 1986, p. 8 (A21708497) (Supplemental VII)	June 9, 1986	Story on digital Equip's new PBX software.
Dix, John, "Unified Messaging; AT&T Reveals New Message Blueprint," Network World, September 22, 1986, p. 1 (A21706473) (Supplemental VII)	September 22, 1986	Story discusses AT&T plan to integrate electronic mail, voice mail, and image mail.
Dix, John, "Voice/Data PBXs: More than	April 23, 1984	Story on companies using PBXs to switch

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Today's Users Need?," Computerworld, April 23, 1984, p. 14 (A21708669) (Supplemental VII)		data.
"Dollars from Dialing," Fortune, March 16, 1987, p. 10 (A21707648) (Supplemental VII)	March 16, 1987	"Fortune" article on Pepsi Superbowl and related telephone operations.
Dorros, Irwin, "Evolving Capabilities of the Public Switched Telecommunications Network," Business Communications Review, January-February 1981 (A21725652) (Supplemental VII)	January-February 1981	Article on expanded PSTN as regarding: DSD, CCIS, 800 service, locator service, etc.
Dowd, Ann Reilly, et al., "Dollars from Dialing," Fortune, March 16, 1987, p. 10 (A21707869) (Supplemental VII)	March 16, 1987	Story on interface operations, e.g. Pepsi football.
Drinkwater, Larry, "Voice Processing: An Emerging Computer ? Technology," Speech Technology, August-September 1984, pp. 50-54 (A21708826) (illegible) (Supplemental VII)	August-September 1984	Article on voice synthesis and voice recognition.
Edwards, M., "Digital PBXs Zero in on the Key Role as Hub of Office," Communications News, Volume 21, Number 12, December 1984, p. 44 (A21708992) (Supplemental VII)	December 1984	Story on expanded use of digitalized PBXs.
Egly, Diana G., et al., "Mnemonic Aids for Telephone-Based Interfaces," Proceedings of the Eleventh International Symposium on Human Factors in Telecommunications, September 1985 (A21725818) (Supplemental VII)	September 1985	Paper on mnemonic aids for telephone interface, that is, key pad entries.
Eichenwald, Kurt, "Just a Phone Call Away: More Dial-It Services," The New York Times, April 16, 1988 (A21725852) (Supplemental VII)	April 16, 1988	Story on uses of CTI.
Excerpt from Electrical Communication Facilities (in Japanese), Volume 33, Number 9, 1981 (A21724248) (Supplemental VII)	1981	Apparently a paper on CTI.
"Electronic Switching: Digital Central Office Systems of the World," Edited by Amos E. Joel, Jr., IEEE Press, 1982 (A21716673) (Supplemental VII)	1982	IEEE book on digital switching, describes several specific switches, e.g. 4ESS, DMS10, etc.
"Electronic Voice Mail Revolutionizing Communications," Tulsa Business Chronicle, Volume 5, Number 26, June 30, 1986 (A21708510) (Supplemental VII)	June 30, 1986	General comments on voice mail.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
Press Release, PR Newswire, March 20, 1984 (A21708647) (Supplemental VII)	March 20, 1984	Story on Rolm sale of system for "phone mail," No details.
Elliot, Thomas R., "A Voice in the Wilderness," Computerworld, June 13, 1984, p. 76 (A21708779) (Supplemental VII)	June 13, 1984	General story on the state of voice mail.
Emerson, Jim, "Catalog Business," DM News, December 15, 1985 (A21708115) (Supplemental VII)	December 15, 1985	Story on telemarketing wherein customers identify product by touching keys.
Emerson, Jim, "Eliminating Live Operators," DM News, December 15, 1985 (A21708114) (Supplemental VII)	December 15, 1985	Story on "Dial Info" telemarketing service, no details.
Engelhardt, Robert M., "Island Paradise Gets System Update," Telephone Engineer & Management, Volume 88, September 15, 1984, p. 104 (A21708904) (Supplemental VII)	September 15, 1984	Story on the updating of a South Pacific telephone system.
Evans, S. A., et al., "Talking and Listening to the Conversant 1 Voice System," AT&T Technology, Date Unknown (A21710392) (Supplemental VII)	Unknown	Article on AT&T Conversant Systems, mentions DID to ready system for incoming transaction.
Exacom Model ASM-200 Answering Service Monitor System, General Description Installation and Operation Manual, Issue 1, December 19, 1986 (W11483) (Supplemental VII)	December 19, 1986	Concord's description of its answering service monitor system, mentions use of DID card with PC/interface card to identify incoming calls (p.5).
Fantel, Hans, "Video: Movies Hot Off the Tube," The New York Times, March 29, 1987 (A21707890) (Supplemental VII)	March 29, 1987	Story on using 800 service and ANI for pay-per-view service.
"The Father of Voice Messaging," Network World, November 1984, p. 57 (A21708942) (Supplemental VII)	November 1984	Story on Gordon Matthews as father of voice mail.
Feldman, Robert, "New AT&T Packages Designed to Spruce up Systems 75/85," MIS Week, June 2, 1986, p. 30 (A21725895) (Supplemental VII)	June 2, 1986	Article: AT&T introduces enhanced equipment as call management and speech conversions.
Fine, Happy, "Tavern on the Bluegrass," Eastern Basketball, Date Unknown (A21706749) (Supplemental VII)	Unknown	Articles on basketball.
"Firm Created After Patent Suit Against First Data," Reuters, October 17, 1994 (A01331388) (Supplemental VII)	October 17, 1994	Story on foundation of RAKTL.

Title of Article/Publication	Date	Comment
Fischell, David R., et al., "Interactive Voice Technology Applications," AT&T Technical Journal, September-October 1990 (A34100164) (Supplemental VII)	September-October 1990	Article details commercial aspects of voice response as for voice mail, information sources, and transactions.
Foster, Robin Harris, "In the Forefront with Integrated Call Centers," AT&T Technology, Volume 7, Number 4, 1992 (A21712913) (Supplemental VII)	1992	AT&T material on products and services including: routing information management, ISDN, voice, etc.
Froehlich, F. E., et al., "The Switched Network Transaction Telephone System," The Bell System Technical Journal, Volume 57, Number 10, December 1978, pp. 3475-3485 (A21725995) (Supplemental VII)	December 1978	AT&T article on transaction telephone data sets and system.
Froehlich, Leopold, "Are Smart Buildings a Dumb Idea? If They're Going to Prosper, Shared Service Providers Will Have to Move from Telephony into Office Automation," Datamation, Volume 31, October 1, 1985, p. 101 (A21708046) (Supplemental VII)	October 1, 1985	Story on computerized building operations as a modern PBX.
Gates, G. W., et al., "Software," The Bell System Technical Journal, Volume 61, Number 5, May-June 1982, pp. 863-883 (A21725913) (Supplemental VII)	May-June 1982	Early report of stored program software to improve routing and call control (1AESS).
Gawron, L. J., et al., "Scanned-Image Technologies Bring New Ways to Conduct Business," AT&T Technology, Volume 6, Number 4, 1991 (A21713611) (Supplemental VII)	1991	AT&T publication reports on improved subjects, only speech processing is of interest and it is not pertinent.
Gawronski, Jane Donnelly, et al., "Audio Response System to Practice Mental Computation Skills," Proceedings of the Digital Equipment Computer Users Society, Volume 1, Number 2, Fall 1974, pp.633-636 (A21725979) (Supplemental VII)	Fall 1974	Society paper on an educational interface program "dial-a-drill" for student use.
Gawrys, G. W., "ISDN: Integrated Network/Premises Solutions for Customer Needs," IEEE, 1986, pp. 1.1.1-1.1.5 (A21725555) (Supplemental VII)	1986	AT&T paper on ISDN allows voice mail, call routing, transaction storage, etc.
Gaylord, D. M., "Better Health for Hospitals with DIMENSION 2000 PBX," Bell Laboratories Record, July-August 1981, pp. 170-173 (A21724371) (Supplemental VII)	July-August 1981	Bell Labs "Record" article on a hospital PBX.
Gerald, Jeannette A., "A Voice Response	Unknown	Article describes a telephonic information

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Gibson, Stanley, "Audix Upgrades Include Messaging, Billing, Management," Computerworld, December 15, 1986, p. 29 (A21707568) (Supplemental VII)	December 15, 1986	Story on AT&T "Audix" voice mail system.
Gibson, Stanley, "Octel Links Voice Mail System to Rolm PBX," Computerworld, December 8, 1986, p. 42 (A21707564) (Supplemental VII)	December 8, 1986	Octel's PBX integration device to interface PBX.
Gillon, A. C., et al., "Voice Power Gives You Voice Messaging – And Then Some," AT&T Technology, Volume 4, Number 2, 1989 (A21712712) repeated (A21724818) (Supplemental VII)	1989	AT&T material on voice messaging equipment.
Gitten, L. J., et al., "5ESS System Evolution," ISS Florence, Session 41 A, Paper 1, May 1984 (A21725543) (Supplemental VII)	May 1984	Story on AT&T's 5ESS re basic capabilities.
Goecke, D., et al., "A Software Engineering Approach Applied to the Complete Design and Production Process of Large Communication Systems Software," ISS '84 Florence, Session 13 C, Paper 1, May 1984 (Supplemental VII)	May 1984	Italian proceedings paper outlining a process for development of a software driver PBX (PABX).
Goldstein, Mark L., "Send A Message. Now! New Digital Networks Can Give Companies a Competitive Edge," Industry Week, July 21, 1986, p. 43 (A21706347) (Supplemental VII)	July 21, 1986	Story on companies using voice mail and electronic mail.
"Gotcha!," Edited by John A. Conway, Forbes, March 10, 1986, p. 9 (A21708345) (Supplemental VII)	March 10, 1986	Forbes report on predicted use of voice mail.
Gottlieb, Dan, "Does the Bell Toll for Voice/Data Independents?," Purchasing, December 13, 1984, pp. 103-108 (A21724641) (Supplemental VII)	December 13, 1984	Article on AT&T vs. independents over voice mail and related equipment.
Grau, Jeff, "IBM Hints at Entering Voice Response Market in 1992," Article Source Unknown, December 11, 1990 (A01346366) (Supplemental VII)	December 11, 1990	Story on IBM voice response unit and related aspects.
Greene, James E., et al., "Voice Response System Sticks to the Script and Saves Time, Money and Tempers	January 1986	Report on Georgia State University program of "touch-tone" registration, allows access with an access code then accepts

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for University Students and Administrators," Communication Age, January 1986 (A21724080) (Supplemental VII)		prompted course numbers to register.
Grumhaus, Audrey, "What's New in Telephone Service: Some Bad News for Nuisance Callers," The New York Times, November 16, 1986 (A21725855) repeated (A21725857) (Supplemental VII)	November 16, 1986	Story on accessibility of services as: reconnect, call forwarding, call tracing, screening, etc. ANI.
Grunbaum, Rami, "Genesis Electronics Heeds the Voice Mail Calling," The Business Journal – Sacramento, Volume 2, Number 49, March 10, 1986 (A21708341) (Supplemental VII)	March 10, 1986	Story on voice mail of Genesis Electronics.
Gunderson, Gary W., "Computer Consoles; Can Your Community Save Lives when Seconds Count?," Business Wire, February 4, 1987 (A21707772) (Supplemental VII)	February 4, 1987	Story on the potential of 911 and ANI.
Hafner, Katherine, "Hello Voice Mail, Goodbye Message Slips," Business Week, June 16, 1986 (A21708507) (Supplemental VII)	June 16, 1986	Story on benefits of voice mail.
Hafner, Katherine, "System 85 Targets Leading-Edge Users: NBI," Computerworld, September 5, 1983, p. 53 (A21724580) (Supplemental VII)	September 5, 1983	Introduction story on AT&T's new PBX.
Hafner, Katherine, "Temporary Telephones," Network World, May 2, 1984 (A21708739) (Supplemental VII)	May 2, 1984	Story on L.A.'s Olympic games telephone service from AT&T with messaging.
Hafner, Katherine, "The Venture Capital Adventure," Network World, August 1, 1984 (A21708837) (Supplemental VII)	August 1, 1984	Story on ventures in telephone technology, including VMX, Inc.
Hamel, Bob, "Voice Messaging; VMX Gives Firms Edge," Network World, March 16, 1987 (A21707864) (Supplemental VII)	March 16, 1987	Story on voice mail users (VMX).
Hanson, Robert J., "The DSC-2000 VoiceServer System," Speech Technology, August-September 1984, pp. 55-65 (A21708818) (Supplemental VII)	August-September 1984	AT&T PBX system is programmed for enhanced operations.
Herits, E., et al., "A New Look for the White Pages," Bell Laboratories Record, June 1980 (A21709547) (Supplemental VII)	June 1980	Article on computerized white pages and a release of new products, e.g. chip, connector, etc.
Hardy, James O., et al., "Handling Coin	September	Bell "Record" article on automating coin

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Toll Calls – Automatically,” Bell Laboratories Record, September 1980, pp. 256-262 (A21710422) (Supplemental VII)	1980	calls.
Harrar, George, “Interview: Ed Landry; Making Office Connections at John Hancock,” Computerworld, April 14, 1986, p. 63 (A21708404) (Supplemental VII)	April 14, 1986	Stories on voice mail and computerized telephone systems.
Hasui, Kouya, et al., “Man-Machine Interfaces in Office Communication Systems,” IEEE Communications Magazine, Volume 24, Number 7, July 1986, pp. 18-23 (A03701435) (Supplemental VII)	July 1986	Article on “man-made” interfaces, work stations.
Coover, Edwin R., “Voice-Data Integration in the Office: A PBX Approach,” IEEE Communications Magazine, Volume 24, Number 7, July 1986, pp. 24-29 (A03701442) (Supplemental VII)	July 1986	Article on PBX operations.
Haszto, E. D., et al., “ALLIANCE Teleconferencing Services Boost Business Efficiency,” AT&T Technology, Volume 3, Number 1, 1988 (A21724796) (Supplemental VII)	1988	AT&T Technology article on teleconferencing “alliance 2000” service – building and call processing for MTs, WATS, and 800 calls.
Heberle, W., “Accumulation of the Signals when Using the Pushbutton Telephone for Data Entry,” Proceedings of the 5 th International Symposium on Human Factors in Telecommunications, September 1970 (A21725766) (Supplemental VII)	September 1970	Paper on human factors in telecommunication.
Heffron, W. G., et al., “Transaction Network Service,” The Bell System Technical Journal, Volume 57, Number 10, December 1978, pp. 3331-3347 (A21725986) (Supplemental VII)	December 1978	AT&T article on a transaction network, to accommodate transaction terminals.
Henricks, Mark, “DSC Makes Japanese Connection,” Dallas-Fort Worth Business Journal, Volume 9, Number 30, March 17, 1986 (A21708347) (Supplemental VII)	March 17, 1986	Story on alliance between DSC Comm. Corp. and Mitsubishi Corp.
Hillhouse, Joseph, “PABX, the Hub: Keeping Communications on Track,” Computer Decisions, Volume 16, November 15, 1984, p. 84 (A21708974) (Supplemental VII)	November 15, 1984	Story on PABX possibilities.
Hindlin, Eric, “PBXs Becoming Practical Alternative to LANs,” PC Week, Volume 4, March 17, 1987, p. C16 (A21707870)	March 17, 1987	Story on PBX systems.

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Hird, E. V., "Party Line Cost Cutters," Telephone Engineer & Management, Volume 90, May 1, 1986, p. 51 (A21708442) (Supplemental VII)	May 1, 1986	Story on party line service.
Hollitz, John, "Giving Information without Human Intervention," The Business Journal – Sacramento, Volume 3, Number 26, Section 1, September 29, 1986, p. 25 (A21706505) (Supplemental VII)	September 29, 1986	Story on interface information operation.
"Home Shopping Network Halts Talks," The Washington Post, February 19, 1987 (A21707804) (Supplemental VII)	February 19, 1987	News piece on "home shopping" per telephone.
"The HORIZON Call Management System Tackles High Call Volume Demands," Telecommunications Product Review, January 1983 (A21724553) (Supplemental VII)	January 1983	Article on PBX systems.
Horton, L. A., et al., "AT&T Systems Link the University of Maryland," AT&T Technology, Volume 7, Number 2, 1992 (A21712897) repeated (A21725512) (Supplemental VII)	1992	AT&T technology article on system at University of MD including voice mail.
Horwitt, Elisabeth, "AT&T Enhancements Fill Gaps in System 75 Digital PBX," Computerworld, June 16, 1986 (A21708505) (Supplemental VII)	June 16, 1986	Story on digital PBX enhancements by AT&T.
Horwitt, Elisabeth, "Rolm to Unveil Low-End PBX: Digital System Bucks Feature-Rich Trend," Computerworld, June 2, 1986, p. 8 (A21708489) (Supplemental VII)	June 2, 1986	Story on Rolm's PBX.
Howitt, Doran, "Boom For Voice Mail Systems," InfoWorld, October 29, 1984, pp. 37-38 (A21708940) (Supplemental VII)	October 29, 1984	Article on aspects of voice mail.
Hubbard, Thomas Leo, "Richardson: High-Tech Prosperity," Dallas Magazine, Volume 66, Number 2, February 1987 (A21707741) (Supplemental VII)	February 1987	Story on Richardson. Texas. Mentions MCI.
Huber, K. M., et al., "Getting the Message with UMS," AT&T Technology, Volume 1, Number 1, 1986 (A21708123) (Supplemental VII)	1986	AT&T Technology article on voice mail, 800 service, automation.
Swann, L., "Universal Operations Systems – Integrated Building Blocks," AT&T Technology, Volume 1, Number 1,	1986	AT&T Technology article on voice mail, 800 service, automation.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
1986 (A21708141) (Supplemental VII)		
Hunter, John J., "Telephone Tag Alternative: Voice Messaging Unshackles Users from Traditional Telephone Limitations," Network World, July 13, 1987 (A21714278) (Supplemental VII)	July 13, 1987	Story on voice mail.
Hutchins, Dexter, "The Legal Battles Over Voice Messaging," Fortune, October 28, 1985 p. 104 (A21708066) (Supplemental VII)	October 28, 1985	Story on voice mail litigation.
"IBM Gives Voice to PS/2, RS/5000 Platforms," Voice Processing Newsletter, Volume 10, Number 22, August 1, 1991 (A01346371) (Supplemental VII)	August 1, 1991	Article on IBM voice processing products.
"IBM Introduces 2 Phone Systems," The New York Times, Date Unknown (A01346365) (Supplemental VII)	Unknown	News piece on IBM automatic telephone answering and voice processing.
"IBM, Inventor Reach Patent Agreement," The Washington Post, August 30, 1985 (A21707976) (Supplemental VII)	August 30, 1985	Story on IBM settlement of voice mail case.
"IBM Reaches Patent Agreement with Inventor," U.P.I., August 29, 1985 (A21707974) (Supplemental VII)	August 29, 1985	Another story on IBM voice mail patent resolution.
"IBM-Rolm Eye CBX-SNA Link," Computerworld, January 5, 1987 (A21707572) (Supplemental VII)	January 5, 1987	Story on IBM-Rolm alliance re: CBXs.
"IBM Says New Line of Big Computers is Faster than Promised," Wall Street Journal, Date Unknown (A01346364) (Supplemental VII)	Unknown	News piece on IBM voice processing.
"ICA Slates Huge Meeting, Exhibit; Includes Program and List of Exhibitors," Telephone Engineer & Management, Volume 88, April 15, 1984, p. 96 (A21708657) (Supplemental VII)	April 15, 1984	Story on International Comm. Assn. Meeting.
IEEE Transactions on Consumer Electronics, Volume CE-25, Number 3, July 1979 (A21725141) (Supplemental VII)	July 1979	IEEE Transactions papers on "consumer text display systems." Material and devices for text display systems.
"Index to Theses," Edited by Geoffrey M. Paterson, et al., Volume XXVI, Part 1, 1977 (A21718028) (Supplemental VII)	1977	Thesis (Univ. Essex) for master's on terminals and speech synthesis.
"Industry Leaders License Katz Interactive Technology Patents," PR Newswire, September 25, 1995 (A01331383)	September 25, 1995	Story on Katz licenses.

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Press Release, Communications Daily, Volume 5, Number 126, June 28, 1985, p. 5 (A21724661) (Supplemental VII)	June 28, 1985	Story: Stockfone quote service.
"Inside an Internetworking Voice-Mail Processor," Data Communications, October 1986, p. 158 (A21706523) (Supplemental VII)	October 1986	Story on voice mail (VMX).
"Integratec's Niche is Collecting on Delinquent Bank Card Accounts," American Banker, August 10, 1988, p. 22 (A21724771) (Supplemental VII)	August 10, 1988	Voicelink's voice mail at Barclay's bank, also Dialogic Processors.
"Card Titan Sees Gold in Electronic Commerce," Financial Service Online, July 1996, p. 8 (A21724775) (Supplemental VII)	July 1996	Story on FDC re: banking.
"International Communications Network Service Installed by Commercial Cable," The Magazine of Bank Management, June 1984, p. 126 (A21708770) (Supplemental VII)	June 1984	Story on VMX voice mail.
"International Information Network Acquisition," PR Newswire, November 7, 1985 (A21708093) (Supplemental VII)	November 7, 1985	Story: Int'l Info. Net., Inc. acquire Megaphone Co.
"International Information Network Agreement," PR Newswire, December 16, 1985 (A21708117) (Supplemental VII)	December 16, 1985	Int'l Info. Net, Inc. reaches agreement with British Telecom.
"International Information Network Announces Agreements," PR Newswire, February 12, 1986 (A21708309) (Supplemental VII)	February 12, 1986	Int'l Info. Net. Inc. gets financing.
"International Information Network Contract," Article Source Unknown, February 25, 1986 (A21708312) (Supplemental VII)	February 25, 1986	Int'l Info. Net Inc. gets weather channel.
"International Information Network Earnings," PR Newswire, December 9, 1985 (A21708110) (Supplemental VII)	December 9, 1985	Int'l Info. Net. Inc. loses money.
"International Information Sets Financing Program," PR Newswire, October 22, 1985 (A21708064) (Supplemental VII)	October 22, 1985	Int'l Info. Net Inc. seeks financing.
Press Release, Communications Daily, Volume 6, Number 41, March 3, 1986, p. 11 (A21708337) repeated (A21706387) (Supplemental VII)	March 3, 1986	Int'l Info. Net Inc. got weather channel.

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"Introducing Voice Quote," The Washington Post, October 9, 1986 (A21707805) (Supplemental VII)	October 9, 1986	News piece on voice stock quotes.
Press Release, Communications Daily, Volume 6, Number 189, September 30, 1986, p. 7 (A21706510) (Supplemental VII)	September 30, 1986	Story on AT&T changes for "900" lines.
Press Release, Communications Daily, Volume 6, Number 189, September 30, 1986 (A21706511) (Supplemental VII)	September 30, 1986	FCC ruling reports include denial of AT&T deposit requirements for Dial Info, Inc.
Jenkins, Avery, "Iowa State Launching Campus Wide Network," PC Week, Volume 4, February 3, 1987, p. C14 (A21707767) (Supplemental VII)	February 3, 1987	Story on Iowa State University PBX and system.
Jerman, Max, et al., "A CAI Program for the Home," Educational Technology, December 1971, p. 49 (A21725984) (Supplemental VII)	December 1971	Article on telephone "Dial-a-Drill" for student quiz.
Johnson, Eric, "Analysts Say that Voice-Message Will Talk up \$1 Billion," Data Communications, January 1984, p. 50 (A21708551) (Supplemental VII)	January 1984	Story: Predictions for voice mail (VMX).
Johnson, J. W., et al., "Integrated Digital Services on the 5ESS™ System," ISS '84 Florence, May 1984, Session 14 A, Paper 3, Pages 1-8 (A21725525) (Supplemental VII)	May 1984	AT&T paper on general features of 5ESS system.
Johnston, David, "Pay Radio' Tunes in Charities, Turns off Some Consumer Groups," Los Angeles Times, Part 6, August 24, 1986, Page 1 (A21706399) (Supplemental VII)	August 24, 1986	Paper on a 976 promotion.
Excerpt from Journal of Information Processing Society of Japan (in Japanese), Volume 23, 1981 (A21724246) (Supplemental VII)	1981	Apparently, Japanese article on data retrieval by phone.
Excerpt from Journal of the Institute of Electronics and Communication Engineers of Japan (in Japanese), Volume 60, Number 10, 1977 (A21725080) (Supplemental VII)	1977	Apparently, Japanese announcement system.
Kaplan, Jeffrey M., "4 th Generation:	October 6,	Story on AT&T divestiture consequence.

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Lacking," Network World, October 6, 1986, p. 38 (A21706646) (Supplemental VII)	1986	
Kaplan, Jeff, "The Uncertain Future of Centrex," Network World, March 14, 1984, p. 17 (A21708640) (Supplemental VII)	March 14, 1984	Story on PBX systems.
Karpinski, Richard, "IBM Offers Voice Processing Line," Telephony, August 5, 1991 (A01346377) (Supplemental VII)	August 5, 1991	News piece regarding IBM offering voice processing.
"Katz Scratch Fever," Telemedia News and Views, Date Unknown (A01331216) (Supplemental VII)		Article on anti-Katz patent portfolio.
Katzel, Jeanine, "Selecting and Installing a Plant PBX System," Plant Engineering, Volume 37, March 3, 1983 (A21713341) (Supplemental VII)	March 3, 1983	Story: A PBX at a rolling mill.
Kawakami, Tokuhiro, et al., "Speaker Independent Speech Recognition and Audio Response System and Facsimile Response System," NEC Technical Journal, Volume 39, Number 7, 1986, pp. 54-79 (A21708159) (Supplemental VII)	1986	Apparently, Japanese article on speech recognition and audio response.
Kelleher, Joanne, "Users; Mastering DEC," Computerworld Extra!, September 24, 1986, p. 61 (A21706475) (Supplemental VII)	September 24, 1986	"Computer World" stories: Ethernet, data nets, and company experiences.
Kemezis, Paul, "The Shared Tenant-Services Debacle and Lessons from it" Data Communications, September 1986, p. 94 (A21706444) (Supplemental VII)	September 1986	Story on PBX sharing.
Koike, H., et al., "An Office-Use Voice Storage System with Elaborate User's Operativity," Proceedings of the Tenth International Symposium on Human Factors in Telecommunications, June 1983, pp. 197-203 (A21725793) (Supplemental VII)	June 1983	International symposium on human factors in telecommunications.
Koike, Tsunehiko, et al., "Parcor-Type Audio Response Unit (in Japanese)," Article Source Unknown (A21724841) (Supplemental VII)	Unknown	Apparently, article on Japanese ARU.
"Kokusai Voicemail to Start International Voicemail Service," COMLINE Daily News Telecommunications, March 10, 1987 (A21707861) (Supplemental VII)	March 10, 1987	Story on a voice mail network.
Kolodziej, Stan, "Where is the Electronic Messaging Explosion?," Computer	October 16, 1985	Story on status of voice mail.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
World, October 16, 1985, p. 21 (A21708056) (Supplemental VII)		
Korzeniowski, Paul, "Voice Messaging; ETS Demise Hits Rolm, Octel Users," Network World, August 4, 1986, p. 1 (A21706390) (Supplemental VII)	August 4, 1986	Story on Rolm and Octel voice mail.
Kylin, J. C. et al., "Benefits of Integrating Data Bases into the SPC Network," ICC '79 Conference Record, Volume 1, June 1979 (A21726001) (Supplemental VII)	June 1979	Paper on stored program network plan.
Lawson, Michael, "AT&T Leaves 'Super- PBX' money on the table for Northern Telecom," Data Communications, September 1987 (A21712210) (Supplemental VII)	September 1987	Story on AT&T PBX and 5ESS features.
Lazarus, George, "Pepsi Also Won the Super Bowl," Chicago Tribune, January 30, 1987 (A21707647) (Supplemental VII)	January 30, 1987	News article on Pepsi superbowl dial in.
Lee, Linda, et al., "Meridian SL Information Services," Telesis, 1985, pp. 13-19 (Supplemental VII)	1985	Article on information services for company use.
Leibowitz, Ed, "The Wonder Years: Intriguing ACD Trends for the 1990s," Teleconnect, Volume 8, Number 4, April 1990, p. 84 (A21712064) (Supplemental VII)	April 1990	Story regarding ACDs with ANI and DNIs.
Levin, David, "Private Branch Exchanges: The Best Time to Shop Might Be Right Now," Data Communications, August 1987, p. 100 (A21714315) (Supplemental VII)	August 1987	Story on PBX competition.
Lineback, J. Robert, "VMX Girds for a Fight in Market it Pioneered," Electronics, May 12, 1986, pp. 55-56 (A21708453) (Supplemental VII)	May 12, 1986	"Electronics" article on VMX voice mail.
Lukeson, David R., "CLASS: The Smart Local Telephone Network," Proceedings of the International Congress on Technology and Technology Exchange, October 1984, pp. 100-103 (A21725864) (Supplemental VII)	October 1984	Paper on telephone advances regarding features as: recall, code ringing, caller id., etc.
"The LUMA Visual Telephone," Telecommunications Product Review, Volume 13, Number 7, July 1986 (A21706313) (Supplemental VII)	July 1986	Article on visual telephone terminal.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
Lyman, Guy C., III, "Voice Messaging Comes of Age," Speech Technology, August-September 1984, pp. 45-49 (A21724634) (Supplemental VII)	August-September 1984	Article on voice messaging applications.
Mankin, Eric, "Playing TV Telephone: New System Opens Door for Audience Participation," Electronic Media, April 24, 1989 (A01331389) (Supplemental VII)	April 24, 1989	Story on FDR services.
Marino, P. J., et al., "AT&T Communications ISDN Plans," IEEE, 1985, pp. 247-251 (A21723894) repeated (A21725560) (Supplemental VII)	1985	IEEE paper on AT&T ISDN.
"Marubeni to Install Voice-Box-Mail System," Japan Economic Journal, March 13, 1984, p. 9 (A21708639) (Supplemental VII)	March 13, 1984	Story: Japanese voice mail.
Mason, G. C. W., "Use of Recorded Announcements for Guidance of Users of Telecommunications Networks," Proceedings of the Eighth International Symposium on Human Factors in Telecommunications, September 1977, pp. 257-262 (A21725784) (Supplemental VII)	September 1977	Article on U.K. announcement system (telephone).
Massey, David K., "Voicetek Hears Sweet Success with Market Strategy," Boston Business Journal, Volume 7, Number 21, Section 1, July 20, 1987, Page 6 (A21714290) (Supplemental VII)	July 20, 1987	Story on Voicetek's success until voice mail.
"The Master of Trivia," The Sporting News, August 19, 1985 (A21706671) (Supplemental VII)	August 19, 1985	News piece on Giants "Dial Info" telephone service.
Matheson, David, "ISDN: The Technology has Discovered its Purpose," Telemarketing, May 1990 (A40002414) (Supplemental VII)	May 1990	Telemarketing article on ISDN, features as when used with ANI, DNIS, and VRU as for dealer locations, etc.
Maxemchuk, N. F., "An Experimental Speech Storage and Editing Facility," The Bell System Technical Journal, volume 59, Number 8, October 1980 (A21724241) (Supplemental VII)	October 1980	Bell "Journal" article on speech storage.
Mearns, Allison B., et al., "Calling Card - Don't Tell It-Dial It," Bell Laboratories Record, May-June 1982, pp. 117-119 (A21709811) repeated (A21709808) (Supplemental VII)	May-June 1982	Bell "Record" article on digital input, as for credit card numbers to call.
Michaelson, Marlene, "Business,	September 8,	News piece on dialing for information.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
Services Use 'Dial A' Formats," Contra Costa Times, September 8, 1986 (A21707858) (Supplemental VII)	1986	Note: "format" refers to the use of "dial a" services.
Mier, Edwin E., "A Big Bonanza in Little Switches," Data Communications, June 1984, p. 68 (A21708764) (Supplemental VII)	June 1984	Story on the increased use of smaller digital PBX units.
Miles, J. B., "AT&T System Upstages its FTS Rivals at Shows; The FTS 2000 Telecommunications Contract," Government Computer News, Volume 6, Number 4, February 27, 1987, p. 1 (A21707808) (Supplemental VII)	February 27, 1987	Story announcing AT&T's equipment.
Miles, J. B., "Bypass Starts to Soar; More Businesses are Avoiding the Public Phone Network as New Technologies Surface and Telecomm Costs Rise," Computer Decisions, Volume 17, November 5, 1985, p. 82 (A21708087) (Supplemental VII)	November 5, 1985	Story on bypassing the PSTN.
Miles, J. B., "Network Control Under Control; Corporations Seeking Unified Network Management Systems May Find Hope in Several New Offerings," Computer Decisions, Volume 18, July 15, 1986, p. 70 (A21706340) (Supplemental VII)	July 15, 1986	Story on internal company networks.
Excerpt from Modern Office Technology, July 1986 (A21706315) (Supplemental VII)	July 1986	Appears to be part of a story on voice mail.
Moore, Steve, "Project Management; Anatomy of a Cutover, Part 1" Network World, August 25, 1986, p. 26 (A21706408) (Supplemental VII)	August 25, 1986	Story on problems of Univ. of Colorado telephone system.
Moore, Steve, "Project Management; Anatomy of a Cutover, Part 2" Network World, September 1, 1986, p. 35 (A21706447) (Supplemental VII)	September 1, 1986	Story on problems of Univ. of Colorado telephone system.
Press Release, Data Communications, August 1984, p. 58 (A21708825) (Supplemental VII)	August 1984	Story on MCI lightwave network.
"MTV-Networks Signs with American Express Affiliate FDR Interactive Technologies," Business Wire, March 28, 1989 (A01331393) (Supplemental VII)	March 28, 1989	Story on FDR agreement with MCI.
"NAB in the 'Big D.," Broadcasting, Volume 112, March 30, 1987, p. 83	March 30, 1987	Story on NA of B (National Association of Broadcasters) convention.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
(A21707892) (Supplemental VII)		
"National Railways' Seat Reservation System by Touch Tone Telephone," Electrical Communication Facilities, Volume 38, Number 339, 1975 (A21724984) (Supplemental VII)	1975	Appears to be a story on Japanese Railway telephone ticket system.
"Newly Formed company Assigned Several Interactive Technology Patents Following the Settlement of Multimillion Dollar Patent Lawsuit," Business Wire, October 17, 1994 (A01331386) (Supplemental VII)	October 17, 1994	Story FDR assigns patents to Katz.
"New AT&T Device Made in Columbus," Columbus Citizen Journal, September 7, 1985 (A01354693) (Supplemental VII)	September 7, 1985	News piece on AT&T Conversant made in Ohio.
"New Products Telecommunications," Sound & Communications, Volume 28, Number 12, April 1983, pp. 84-85 (A21713354) (Supplemental VII)	April 1983	"Sound & Communications" article on voice mail.
"New Systems Stem Losses from Credit Card Debt; Technology Streamlines Phone Contacts," American Banker, August 10, 1988 (A21724777) (Supplemental VII)	August 10, 1988	Apparently a story on FDR.
"New Voice Processing Products Mean Improved Customer Service," Article Source Unknown, (A01346357) (Supplemental VII)	Unknown	Story on IBM voice processing and messaging.
Newton, Harry, "AT&T Information Systems One Year Later," Office Administration and Automation, Volume 45, January 1984, p. 37 (A21708557) (Supplemental VII)	January 1984	Story on AT&T Information Systems.
Newton, Harry, "Dumb Smart Switches," Teleconnect, May 1991, pp. 14-18 (Supplemental VII)	May 1991	"Teleconnect" article by Harry Newton on PBXs, etc.
Newton, Harry, et al., "Send Us Your Pre-1989 Brochures," Computer Telephony, October 1996, pp. 16-26 (A01331210) (Supplemental VII)	October 1996	Article seeking prior art versus Katz portfolio, refers to Matthews voice mail patent 4,580,012.
Nishikado, Iwamasa, et al., "Voice Storage System for Centralized Extension System," Review of the Electrical Communication Laboratories, Volume 32, Number 6, 1984, pp. 1010-1018 (A21725924) (Supplemental VII)	1984	"Review" paper on voice storage and delivery in telephone applications.

Title of Article/Publication	Date	Comment
Press Release, The American Banker, October 20, 1986, p. 13 (A21706658) (Supplemental VII)	October 20, 1986	Story on voice mail in banking applications and related.
"Northern-Telecom-2; (NT) Northern Telecom Announces Software Feature Package," Business Wire, February 18, 1987 (A21707802) (Supplemental VII)	February 18, 1987	Story on "Northern Telecom's" software package for control, etc. per ANI, etc.
"No. Telecom Upgrades Digital PBX," Electronic News, Volume 30, April 30, 1984, p. 63 (A21708708) (Supplemental VII)	April 30, 1984	Story on "Northern Telecom's" PBX.
Nowogrocki, Jim, "City, County Spend About \$ 1 Million on 911," St. Louis Business Journal, Volume 6, Number 43, Section 3, August 4, 1986, p. 1C (A21706393) (Supplemental VII)	August 4, 1986	Story on ANI in 911 applications.
"Office Automation Advances 'White Collar' Productivity," Dun's Business Month, Volume 126, March 1986, p. 59 (A21708336) (Supplemental VII)	March 1986	Story on office automation including voice mail.
The Official Proceedings of Speech Tech '85, Media Dimensions, Inc., April 1985, Cover and General Information Pages (Supplemental VII)	April 1985	Conference on voice input and output, e.g. simulated speech technology.
Excerpt in Japanese, Article Reference Unknown (A21724849) (Supplemental VII)	Unknown	Japanese article, may be related to article on I.D. card transaction set.
Press Release, PR Newswire, May 9, 1986 (A21708451) (Supplemental VII)	May 9, 1986	Story on pay-per-view.
Paznik, Megan Jill, "Voice Mail: Pitfalls and Promises," Administrative Management, Volume 48, March 1987, p. 16 (A21707849) (Supplemental VII)	March 1987	Story on voice mail.
"The PBX Marketplace; Private Branch Exchanges," Administrative Management, Volume 47, January 1986, p. 45 (A21708194) (Supplemental VII)	January 1986	Story on current PBX models.
"Peek at Future of 'General Hospital'" Times-Picayune, Date Unknown (A21708536) (Supplemental VII)	Unknown	News piece on dial a soap for updates.
Pelline, Jeff, "AT&T System Links Voice to Computer," San Francisco Chronicle, September 10, 1985 (A01354691) (Supplemental VII)	September 10, 1985	News piece on introduction of AT&T Conversant System.

Title of Article/Publication	Date	Comment
"Perception Technology; (PCEP) Perception Technology Announces ANI, DID Enhancements," Business Wire, February 27, 1987 (A21707811) (Supplemental VII)	February 27, 1987	Story on DID bypass PBX operation.
Petit J. C., et al., "GALAXIE: Toward Adaptive Distributed Control Systems," ISS '84 Florence, May 1984, Session 41 A, Paper 3 (Supplemental VII)	May 1984	Paper on a distributed hardware telephone switching system with programmed modules.
Petrosky, Mary, "Interactive Speech System From AT&T's Business Unit," Infoworld, Volume 7, Issue 38, September 23, 1986 (A21708029) (Supplemental VII)	September 23, 1986	News articles, only one of which appears related, that on AT&T's conversant I for speech.
Pfister, George M., "The PBX: What Matters, What Doesn't," Datamation, Volume 30, August 1, 1984, p. 121 (A21708831) (Supplemental VII)	August 1, 1984	Story on criteria for PBX units.
Plakias, Mark, "The Katz that Ate the Canary," Telemedia News and Views, Volume 2, Number 11, November 1994 (A01331037) (Supplemental VII)	November 1994	News piece on West-FDR settlement.
Pollack, Andrew, "Audiotex: Data By Telephone," The New York Times, January 5, 1984 (A21725850) (Supplemental VII)	January 5, 1984	Story on new "Audiotex" voice mail system with information access.
Portantieri, Nick, "AT&T Introduces System 25 Digital PBX," Electronic News, July 7, 1986, p. 34 (A21706324) (Supplemental VII)	July 7, 1986	Story on AT&T's new PBX for data, conferencing, etc.
Power of Attorney for USPA 5,109,404, Inventor Ronald A. Katz (Supplemental VII)		Katz Power of Attorney to PTO 6646-129.
Prell, E. M., et al., "The Changing Role of the Operator," International Switching Symposium, May 1979, pp. 697-703 (A21725933) (Supplemental VII)	May 1979	Paper automating work of telephone operators.
Prince, Terry, et al., "A Telephone for the 'Checkless' Society," Bell Laboratories Record, September 1972, pp. 249-253 (A21725647) (Supplemental VII)	September 1972	Article on card-reading telephone instrument from Bell Labs.
"Profit from Impulse Pay-Per-View," Advertisement for Science Dynamics Corporation, Telephony, July 14, 1986 (A21706337) (Supplemental VII)	July 14, 1986	"Telephony" advertisement on Science Dynamics Corp.'s Pay-per-view.
"Prudential Insurance Mortgage by	February 19,	Story on Prudential's "Mortgage by phone"

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
Phone Program," PR Newswire, February 19, 1986 (A21708310) repeated (A21708311) (Supplemental VII)	1986	program (representatives).
Pulford, Jack, "Aurora System is Built to Grow," Telephone Engineer & Management, Volume 88, August 1, 1984, p. 78 (A21708841) (Supplemental VII)	August 1, 1984	Story: Alberta system has 9000 mobile subscribers with ANI, call forward, etc.
Putnam, Jane, "Winners," Contra Costa Sun, August 14, 1985 (A21706705) (Supplemental VII)	August 14, 1985	Article on Dial Giants Baseball – no detail.
"Putting an End to Telephone Tag," ABA Banking Journal, February 1987, (A21707747) (Supplemental VII)	February 1987	Voice messaging at Chase Manhattan.
Raack, G. A., et al., "Customer Control of Network Features," ISS '84 Florence, May 1984, Session 14 A, Paper 2 (A21725520) repeated (A21725717) (Supplemental VII)	May 1984	Paper on improved operations in AT&T system, including 800 service, software control, and call processing.
Raimondi, Donna, "AT&T Debuts Primary Rate for System 85," Computerworld, February 23, 1987, p. 41 (A21707806) (Supplemental VII)	February 23, 1987	Story: AT&T announces ISDN rate.
Rappaport, David M., "Voice Mail: Key Tool or Costly Toy," Data Communications, October 1986, p. 153 (A21706526) (Supplemental VII)	October 1986	Story: voice commentary.
"Redwood by Rolm," Telecommunications Product Review, Volume 13, Number 6, June 1986 (A21708487) (Supplemental VII)	June 1986	Article on Rolm PBX and features.
Rees, Norm, "Flexible Voice Response Software Speeds Development for Resellers," Speech Technology, March-April 1988, pp. 46-49 (Supplemental VII)	March-April 1988	Article on voice response software.
Results of Lexis Search Request "Call Interactive," Date of Search August 5, 1996 (A01331399) (Supplemental VII)	August 5, 1996	Report on FDC.
Rice, Valerie, "AT&T Enters Speech-Processing Business, Names First Customers," Investor's Daily, September 10, 1985 (A01354684) (Supplemental VII)	September 10, 1985	News piece on introduction of AT&T Conversant.
Riederer, S. A., "Conversant VIS Means Business," AT&T Technology, Volume 5, Number 4 (A21711986)	Unknown	Articles on AT&T Conversant, voice mail, and speech processing.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
(Supplemental VII)		
Rangnekar, S., et al., "AT&T Voice Mail Service," AT&T Technology, Volume 5, Number 4 (A21711992) (Supplemental VII)	Unknown	An AT&T publication on voice mail.
"Ring System; Provides District of Columbia with Automatic Number and Location Identification to Aid in Emergency Services Response," Business Wire, August 7, 1986 (A21706396) (Supplemental VII)	August 7, 1986	Story on Washington, D.C., 911 System with ANI.
Press Release, PR Newswire, March 3, 1986 (A21708338) (Supplemental VII)	March 3, 1986	Story on ACD with ANI.
Rippeteau, Jane, "'Smart' Way to Get Message Across," Financial Times, June 12, 1986 (A21708502) (Supplemental VII)	June 12, 1986	Story on company's voice mail.
Rogers, Thomas, et al., "Scouting - A Worthwhile Trivial Pursuit," The New York Times, August 9, 1985 (A21707968) (Supplemental VII)	August 9, 1985	Story on telephone baseball game.
"Rolm-Corp; Appoints Harvey and Zalisk as Vice President," Business Wire, May 21, 1986 (A21708472) (Supplemental VII)	May 21, 1986	Story on Rolm voice mail management.
"Rolm-Corp; Introduces Redwood for Branch Offices and Small Businesses," Business Wire, June 2, 1986 (A21708491) (Supplemental VII)	June 2, 1986	Story on Rolm voice mail expansion.
"Rolm; Links PhoneMail to IBM VM Host," Business Wire, May 5, 1986 (A21708447) (Supplemental VII)	May 5, 1986	Story on Rolm voice mail.
"Rolm Releases Four-Channel Phonemail Voice Message Unit," Computerworld, January 28, 1985 (Supplemental VII)	January 28, 1985	News piece on Rolm voice mail.
"Rolm; Rolm Announces PhoneMail Network," Business Wire, February 9, 1987 (A21707775) (Supplemental VII)	February 9, 1987	Story on Rolm voice mail.
"Rolm; Rolm Awarded Major contract by Columbia University," Business Wire, March 2, 1987 (A21707855) (Supplemental VII)	March 2, 1987	Story on Rolm contract with Columbia University.
"Rolm; Rolm CBX II 9000AE Offers Abundant System Power for Applications Growth," Business Wire, February 3, 1987	February 3, 1987	Story on Rolm larger PBX.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
1987 (A21707765) (Supplemental VII)		
"Rolm; 15-Node Rolm System to be Installed at University of Rochester," Business Wire, November 11, 1985 (A21708096) (Supplemental VII)	November 11, 1985	Story on Rolm voice mail at University of Rochester.
Roman, David R., "Building Up Your Personal Computer; Part II: Data-Input Devices," Computer Decisions, Volume 16, March 1984, p. 110 (A21708630) (Supplemental VII)	March 1984	Story: input devices for enhancing computer interface.
Rosenbaum, Art, "This 'Maniac' Spreads His Loot Around," San Francisco Chronicle, July 24, 1986 (A21706875) (Supplemental VII)	July 24, 1986	Article on Giants trivia telephone game.
Rosinski, R. R., "Uses of AT&T Speech Processing Technology," AT&T Technology, Volume 5, Number 4, Date Unknown, pp. 4-5 (A21723940) (Supplemental VII)	unknown	AT&T article on speech processing re: "Conversant", voice mail, and cellular.
Ruhl, H. W., et al., "Sprein - A Voice I/O Mail Order System with Telephone Access," Article Source Unknown (Supplemental VII)	unknown	German operation in 1985 to implement mail order telephone automation - preliminary.
Salter, Stephanie, "When the 'Say Hey Kid' Met the 'Say How' Bunch," San Francisco Examiner, Date Unknown (A21706704) (Supplemental VII)	unknown	Article on Willie Mays re baseball and Dial Giants.
Sanger, David E., "A Driving Force Leaves Rolm," The New York Times, January 15, 1986 (A21708200) (Supplemental VII)	January 15, 1986	Story on IBM buying Rolm and personnel.
Press Release, PR Newswire, September 17, 1985 (A21708022) (Supplemental VII)	September 17, 1985	Story on Greatneck, New York 911 system with caller I.D.
Schindler, Paul E., Jr., "AT&T Talking up Conversant 1 Unit," Information Week, September 16, 1985 (A21723912) (Supplemental VII)	September 16, 1985	Article on speaker-independent speech recognition in Conversant 1.
Schinke, David, "Speaker Independent Recognition Applied to Telephone Access Information Systems," Speech Tech '86, 1986 (A21718178) (Supplemental VII)	1986	Story on AT&T speech recognition per Conversant.
Schulman, Roger, "TeleLearning: The Computer Brings the Classroom Home," Family Computing, September 1984, pp. 50-53 (A21708881) (Supplemental VII)	September 1984	Article on use of Apple computer to implement telephone teaching.
Schumaker, Robert M., Jr., "Phone-	1992	Paper on interactive voice response

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Based Interfaces: Research and Guidelines," Proceedings of the Human Factors Society 36 th Annual Meeting, 1992, pp. 1051-1055 (Supplemental VII)		primarily regarding speech.
Schwartz, Jeffrey, "IBM Enhances Voice Processing," Article Source Unknown (A01346375) (Supplemental VII)	unknown	News piece on IBM voice processing.
Schwartz, P., et al., "JISTEL 500 – Time Division Exchange Including Voice and Data with Voice Messaging," ISS '84 Florence, May 1984, Session 21 A, Paper 6, pp. 1-4 (Supplemental VII)	May 1984	Paper on PABX for accommodating speech and data (French).
Scully, Sharon, "Product News; Saturn PBX Revamped," Network World, May 19, 1986, p. 4 (A21708470) (Supplemental VII)	May 19, 1986	Story on Siemens PBX accommodating data.
Seaman, John, "Voice Mail: Is Anybody Listening?," Computer Decisions, Volume 16, May 1984, p. 174 (A21708731) (Supplemental VII)	May 1984	Story reporting on voice mail.
"Select List of Telecommunications Providers," The Magazine of Bank Management," August 1986, p. 32 (A21706373) (Supplemental VII)	August 1986	Story on companies active to provide banking telephone system.
Semilof, Margie, "High-End Voice/Data PBXs: Voicing Doubts about Data," Network World, March 31, 1986, p. 65 (A21708354) (Supplemental VII)	March 31, 1986	Story on buying a voice-data PBX.
"Senate Panel Meets Today; C&P Objects to House Decision Awarding Telephone Contract to AT&T-IS," Communications Daily, Volume 5, Number 238, December 10, 1985, p. 4 (A21708112) (Supplemental VII)	December 10, 1985	Story: Chesapeake & Potomac Tel objects to AT&T getting contract.
Session Number 13 – Contemporary Developments in Addressability and Pay-Per-View, Pay-Per-View Conference, April 28, 1985, p. 21 (A21707196) (Supplemental VII)	April 28, 1985	Announcement of speech on Pay-per-view.
Sharma, Ranjana, "PBX Users Benefit from Vitality of ACD Market," Network World, October 17, 1988 (A21712686) (Supplemental VII)	October 17, 1988	Story on ACD market.
Shaw, Peter, "The Need for BT's Managed Information Services," British	April 1992, pp. 2-6	British paper on announcement services offered by BT.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
Telecommunications Engineering, Volume 11, April 1992, pp. 2-6 (Supplemental VII)		
Shepherd, John, et al., "Managed Recorded Information Services – An Overview," British Telecommunications Engineering, Volume 11, April 1992, pp. 7-13 (Supplemental VII)	April 1992	Paper on BT's telephone managed service, historically beginning in 1985 with mass answering.
Shimizu, Hiroshi, "Advanced Credit Call Service," Japan Telecommunications Review, October 1986, pp. 247-250 (Supplemental VII)	October 1986	Paper on the implementation of a Japanese credit-call telephone service involving verification and billing.
Press Release, PR Newswire, December 5, 1985 (A21708108) (Supplemental VII)	December 5, 1985	Story on "Showtime" pay-per-view involving ANI and 800 service (viacom).
Siragusa, Gail, "Voice Mail Takes Off: Send and Receive Messages by Phone," Administrative Management, Volume 47, April 1986, p. 43 (A21708393) (Supplemental VII)	April 1986	Story on the benefits of voice mail.
"Small Company Initial Public Offerings: December 1983," Goldhirsch Group, Inc., March 1984, p. 138 (A21708624) (Supplemental VII)	March 1984	Story on public offerings (small co. IPOs).
Smith, Tom, "Production Use of ISDN Lives up to Expectations," Network World, February 26, 1990 (A21712004) (Supplemental VII)	February 26, 1990	Story on the use of ISDN.
Snow, Stephen A., "Consumers Show Strong Preference for Automated Telephone Call Processing," Business Wire, October 19, 1988 (A21724781) (Supplemental VII)	October 19, 1988	Story on automated call processing as publicly accepted.
"AT&T to Offer New Service," Reuter Newswire, November 21, 1988 (A21724788) (Supplemental VII)	November 21, 1988	Story on AT&T 900 service.
"Soap Opera Updates Now Available in Area," Contra Costa Times/TV, May 28, 1984, p. 4 (A21708748) (Supplemental VII)	May 28, 1984	Article on telephone soap updates.
"Something for Everyone at NAB's Equipment Exhibition," Broadcasting, Volume 112, March 23, 1987, p. 63 (A21707873) (Supplemental VII)	March 23, 1987	Story reporting on recorders, cameras, PBXs, workstations, etc.
Song, D, et al., "System 12 Line and Trunk Testing," ISS Florence, May 1984, Session 32 A, Paper 5, Page 1 (Supplemental VII)	May 1984	Italian paper on software driver switch with line and trunk tests.
"Special Information Tones Provide	November	Bell Labs has new "interactive" system for

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
Computer with Vital Call Data," Bell Laboratories Record, November 1981 (A21710768) (Supplemental VII)	1981	traffic planning.
Staehler, R. E., "Toward a More Automated Network - TSPS Enhancements Lead the Way," Telephony, February 8, 1982, pp. 45-48 (A21725941) (Supplemental VII)	February 8, 1982	Article on AT&T traffic service, as automated coin calls, credit card calls, etc.
"The Stamp of Approval for Voicemail," Article Source Unknown, (A21707760) (Supplemental VII)	Unknown	Article on voice mail reporting on IBM system at Ford Motor, etc.
Stern, Aimee, "Cable Operators Fight Back; Pay-Per-View TV," Dun's Business Month, Volume 129, February 1987 (A21707748) (Supplemental VII)	February 1987	Story on pay-per-view users.
Stewart, Alan, "Signaling Changes for Interconnects; NATA 86 Trade Show," Telephone Engineer and Management, Volume 90, December 15, 1986, p. 72 (A21707569) (Supplemental VII)	December 15, 1986	Story on NATA trade show, mentions ISDN.
Stix, Gary, "Many Bands = Light Work," Computer Decisions, Volume 17, September 10, 1985, p. 92 (A21708015) (Supplemental VII)	September 10, 1985	Story on fiber optics, also mentions PBX operations.
Press Release, Communications Daily, Volume 5, Number 148, July 31, 1985, p. 7 (A21708033) repeated (A21724666) (Supplemental VII)	July 31, 1985	Stories on Int'l Info Net's losses and Zenith's pay-per-view operation.
"International Information Network Earnings," PR Newswire, September 30, 1985 (A21708033) repeated (A21724666) (Supplemental VII)	September 30, 1985	Stories on Int'l Info Net's losses and Zenith's pay-per-view operation.
"International Information Sets Financing Program," PR Newswire, October 22, 1985 (A21708034) repeated (A21724667) (Supplemental VII)	October 22, 1985	Stories on Int'l Info Net's losses and Zenith's pay-per-view operation.
Stoffels, Bob, "REA Takes its Show on the Road: Engineering and Management Seminars," Telephone Engineer & Management, Volume 88, May 15, 1984, p. 129 (A21708746) (Supplemental VII)	May 15, 1984	Story on small telephone companies.
"Strike Three," S. F. Progress, August 7, 1985 (A21706708) (Supplemental VII)	August 7, 1985	News piece on Giants baseball.
Strom, David, "Telephone or MIS	February 17,	Story on problems of the digital switch

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
Managers: Who Flips the PBX Switch; Management and Use of New Communications Technology; Connectivity – Focus on LANs,” PC Week, Volume 4, February 17, 1987, p. C1 (A21707798) (Supplemental VII)	1987	(PBX).
Sullivan, Linda, “Ameritech Services Signs Leading National Information Provider as a Master Dealer,” Business Wire, September 25, 1989 (A21724794)	September 25, 1989	Story on voice response suppliers.
Susca, Paul, “Telemarketing: Reach Out and Sell Someone,” Network World, May 4, 1987 (A21714122) (Supplemental VII)	May 4, 1987	Story on ACDs, database and DNIS for telemarketing.
Swan, Gary E., “Gift to Kids Wasted if Ballplayers Strike,” San Francisco Chronicle, Date Unknown (A21706673) (Supplemental VII)	unknown	News piece on baseball trivia and porn operators.
“System 85 Voice Messaging Due in ‘85,” Data Communications, December 1984, p. 204 (A21709005) (Supplemental VII)	December 1984	Story on AT&T’s System 85 improvements, e.g. voice & data.
Tagg, Ed, “Automating Operator-Assisted Calls Using Voice Recognition,” Speech Technology, March-April 1988, pp. 22-25 (Supplemental VII)	March-April 1988	Article from Speech Technology on using voice recognition to automate operator functions.
Takahashi, Y., “Technique to Use Chinese Letters for the On-Line System in Marketing Business,” Packaging Technology, Volume 19, Number 11, 1981 (A21724264) (Supplemental VII)	1981	Japanese or Chinese paper, apparently on Chinese character conversion for telephone use.
Talmadge, Candace, “MetroCal Dumps Richards for K-C,” Adweek, January 5, 1987 (A21707728) (Supplemental VII)	January 5, 1987	Story on cellular company’s change of agency.
“Tech Deals,” Phillips Business Information, Volume 7, Number 120, June 25, 1996 (A01331382) (Supplemental VII)	June 25, 1996	Story on Home Shopping license from RAKTL.
Telecommunication Technology, Volume 4, Number 4, April 1986, p. 68 (A21724070) (Supplemental VII)	April 1986	Part of a Telecom article on PBXs, ATMs and voice response.
“‘Teleguide’ Network Gives Tourists the Answers,” ComputerData, April 1983 (A21724569) (Supplemental VII)	April 1983	Article on “Teleguide”, a Canadian system to provide information, as on restaurants, etc. to individual terminals.
“Telephone Service Offers the Latest News on the Soaps,” Augusta, GA Chronicle-Herald, July 28, 1984	July 28, 1984	News pieces on 976 soap opera updates and voice messaging.

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(A21724626) (Supplemental VII)		
Telephony, September 29, 1980 (A21716447) (Supplemental VII)	September 29, 1980	"Telephony" articles and ads of questionable pertinence, e.g. telephone features, fiber, data phone, WATS, legal, voice mail.
"Test Your Baseball I. Q. and Win Four Tickets to All-Star Workout Day," Contra Costa Times, Date Unknown (A21706787) (Supplemental VII)	unknown	News ad on baseball trivia game.
Tetschner, Walt, "PC-Based Voice Processing Software Tools," Speech Technology, March-April 1988, pp. 42-45 (Supplemental VII)	March-April 1988	"Speech Technology" article on voice processing.
Tetschner, Walt, "The Voicetek VTK 90 Voice Computer," Speech Technology, March-April 1987, pp. 102-106 (Supplemental VII)	March-April 1987	New product piece on a voice computer.
"They've Got Your Number in AT&T's first Primary-Rate Test," Data Communications, February 1988, p. 15 (A21712494) (Supplemental VII)	February 1988	Story on ANI re telemarketing generally.
"Toshiba Telecom Introduces Universal Instrumentation for Entire Line of Key and PBX Systems," Telecommunications Product Review, Volume 11, Number 2, February 1984 (A21708573) (Supplemental VII)	February 1984	Article on new Toshiba PBX systems.
"Tracking the Trucks," Network World, September 5, 1984, p. 55 (A21708897) (Supplemental VII)	September 5, 1984	Story on Rolm voice mail for trucking co.
Excerpt from Transportation Technology (in Japanese), Volume 30, Number 7, 1975 (A21725045) (Supplemental VII)	1975	Apparently a Japanese article on telephone interface.
"Trivia Promo Chips Away for Frito-Lay," Advertising Age, Date Unknown (A21707650) (Supplemental VII)	Unknown	News piece on Frito-Lay telephone promotion.
"Trivial Tickets," The Fort Wayne Journal-Gazette, August 11, 1985 (A21706713) (Supplemental VII)	August 11, 1985	News piece on trivia baseball.
"Two Firms Introduce FMS Products," Energy User News, Volume 9, August 6, 1984, p. 12 (A21708848) (Supplemental VII)	August 6, 1984	Story on telephonic facilities management.
Tyson, David O., "Voice Mail Technology Streamlines Bank Telephone Messaging Services," The American Banker,	October 15, 1986	Story on VMX voice mail.

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October 15, 1986, p. 13 (A21706655) (Supplemental VII)		
Upton, Molly, "No Clear Winner in War of Mails," Computerworld, May 19, 1986, p. 60 (A21708459) (Supplemental VII)	May 19, 1986	Story on email versus voice mail.
Vanandel, M. A., "While You're Away, AUDIX Will Answer," AT&T Technology, Volume 3, Number 3, 1988 (A21724808) (Supplemental VII)	1988	"AT&T Technology" article on voice mail.
"Vendor Support Eases GOP Costs," Computerworld, August 27, 1984 (A21708865) (Supplemental VII)	August 27, 1984	Story on AT&T's system for the LA summer Olympics.
"View from Silicon Valley: Silicon Valley Companies Battle for Advantage, Compatibility," Communications Daily, Volume 4, Number 90, May 8, 1984, p. 1 (A21708743) (Supplemental VII)	May 8, 1984	Story on computer impact on telephone systems.
Virzi, Robert A., "Skip and Scan Telephone Menus: User Performance as a Function of Experience," Proceedings of the Human Factors Society 36 th Annual Meeting-1992, p. 211-215 (Supplemental VII)	1992	Human factors in CIT.
Vizcarrondo, John, et al., "HOBIS: New Designs on Hotel Billing," Bell Laboratories Record, January 1980 (A21709392) (Supplemental VII)	January 1980	"Bell Record" article on hotel interfaces.
"VMX Announces InfoLink: New capability in Voice Messaging Arena," Business Wire, June 16, 1987 (A21714159) (Supplemental VII)	June 16, 1987	Story on VMX voice mail regarding certain capabilities.
"VMX/Honneywell; (VMXI) (HON) Take Voice Messaging 'Down Under' After Signing Distribution/OEM Agreement for Australia and Pacific Basin," Business Wire, September 3, 1986 (A21724699) repeated (A21706451) (Supplemental VII)	September 3, 1986	Story on voice mail (VMX); Story on "smart" buildings as with voice mail.
"VMX, Inc. Adds Internal Revenue Service to Voice Message (SM) Users," Southwest Newswire, February 8, 1984 (A21708587) (Supplemental VII)	February 8, 1984	Story on VMX voice mail.
"VMX, Inc. Announces Another Good Quarter," Southwest Newswire, August 1, 1984 (A21708846) (Supplemental VII)	August 1, 1984	Story on VMX voice mail financial.

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"VMX, Inc. Announces First Quarter Results," Southwest Newswire, October 18, 1985 (A21708063) (Supplemental VII)	October 18, 1985	Story on VMX voice mail markets.
"VMX, Inc. Announces Landmark Approval of first Voice Message System in Japan," Southwest Newswire, June 1, 1984 (A21708776) (Supplemental VII)	June 1, 1984	Story on VMX voice mail regarding foreign expansions.
"VMX; (VMXI) AT&T Tops List of Seven License Agreements Granted in Third Quarter," Business Wire, September 9, 1986 (A21706457) (Supplemental VII)	September 9, 1986	Story on VMX voice mail licenses.
"VMX-Inc; (VMXI) Hosts First International Networking Seminar," Business Wire, July 18, 1986 (A21706345) (Supplemental VII)	July 18, 1986	Story on VMX voice mail seminar.
"VMX, Inc. Provides First Voice Message (SM) Systems to Three Bell Operating Companies," Southwest Newswire, December 11, 1984 (A21709007) (Supplemental VII)	December 11, 1984	Story on VMX voice mail related to customers.
"VMX, Inc. Releases Audited Fiscal 1984 Financials – It was a Very Good Year," Southwest Newswire, August 7, 1984 (A21708852) (Supplemental VII)	August 7, 1984	Story on VMX stock.
"VMX; (VMXI) Voice Messaging Leader VMX, Inc. Launches New Generation Technology with VMX(R) 5000 Series," Business Wire, October 7, 1986 (A21706650) (Supplemental VII)	October 7, 1986	Story on new VMX streamlined product.
"VMX; (VMXI) Voice Messaging Patent-Holder VMX Inc. Moves into France after Signing Distribution Agreement with Jeumont-Schneider," Business Wire, September 15, 1986 (A21706459) (Supplemental VII)	September 15, 1986	Story on VMX patents.
"VMX; (VMXI) VMX 5000 Series Voice Messaging System Scores High Sales During First Quarter," Business Wire, March 10, 1987 (A21707862) (Supplemental VII)	March 10, 1987	Story on VMX business.
Press Release, Communications Daily, Volume 4, Number 209, October 26, 1984, p. 6 (A21708939) (Supplemental VII)	October 26, 1984	Story on VMX stock.
Press Release, Computerworld, October 7, 1985, p. 68 (A21708055)	October 7, 1985	Story on VMX operations generally.

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(Supplemental VII)		
Press Release, PR Newswire, January 18, 1984 (A21708570) (Supplemental VII)	January 18, 1984	Story on VMX financial.
Press Release, PR Newswire, April 10, 1984 (A21708655) (Supplemental VII)	April 10, 1984	Story on VMX financial.
Press Release, PR Newswire, October 16, 1984 (A21708935) (Supplemental VII)	October 16, 1984	Story on VMX sales.
Press Release, PR Newswire, January 24, 1986 (A21708207) (Supplemental VII)	January 24, 1986	Story on VMX stock.
Voice Mail Brochure, Radio-Suisse Ltd., Date Unknown (W70172) (Supplemental VII)	Unknown	Voice mail operating scripts.
Voice Mail User Instructions, Voicemail International, 1991 (W70211) (Supplemental VII)	1991	Brochure on voice mail.
"Voice Messaging Capability from VMX," The Magazine of Bank Management, October 1985, p. 86 (A21708037) (Supplemental VII)	October 1985	Story on VMX voice mail software.
Voice Processing International Conference Program, July 1986 (A21723351) (Supplemental VII)	July 1986	Announcement on voice processing conference.
Voice Processing – The New Revolution, Proceedings of the International Conference, July 1986 (A21722980) (Supplemental VII)	July 1986	Proceedings of conference on voice processing with many papers, see p. 41 on interactive.
"Voice System Tunes up Automaker's Communications," Computerworld, November 12, 1984, p. 35 (A21708972) (Supplemental VII)	November 12, 1984	Story on VMX voice mail at Ford Motor
"Voice '92," Conference Information and Program, 1992 (W11651) (Supplemental VII)	1992	A group of publications on a conference on voice applications.
Press Release, Communications Daily, Volume 4, Number 110, June 6, 1984, p. 9 (A21708778) (Supplemental VII)	June 6, 1984	Story on VMX in Japan.
"Votrax Announces Centrum 9000, Model 5," Source Unknown, October 16, 1987 (A21724763) (Supplemental VII)	October 16, 1987	Story of Votrax announcing new "Centrum" model PBX.
Waite, Andrew J., "Applying IVR Systems," Inbound/Outbound, September 1988, pp. 30-39 (A21725733) (Supplemental VII)	September 1988	Articles on interactive planning installation and available systems
Walker, Murt, "CCS7 Offers New Paths to Revenue Generating Services," AT&T	1991	AT&T Technology article on switch services.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
Technology, Volume 6, Number 2, 1991, pp. 8-19 (A21713600) (Supplemental VII)		
Wallace, Bob, "All Voice Systems Are Not Alike," Network World, September 14, 1987 (A21712240) (Supplemental VII)	September 14, 1987	Story on Intercom's voice mail and others.
Wallace, Bob, "Comnet '87; AT&T Announces ISDN Interface for System 85," February 16, 1987 (A21707796) (Supplemental VII)	February 16, 1987	Story on AT&T's ISDN interface with System 85 PBX.
Walters, R. E., et al., "Voice Processing Systems in British Telecom," British Telecommunications Engineering, Volume 9, July 1990, pp. 88-97 (Supplemental VII)	July 1990	British Telecom Engineering article on voice processing includes recognition of interactive operations.
Warner, Edward, "Bank's Speech Synthesizers Greet Financiers' Calls with Daily Balance," Computerworld, October 22, 1984, p. 6 (A21708937) (Supplemental VII)	October 22, 1984	Story on Boston bank's speech synthesis.
Watt, Peggy, "Local Phone Companies Eyeing Market for Voice Mail Services," Computerworld, March 24, 1986, p. 23 (A21708350) (Supplemental VII)	March 24, 1986	Story on local phone companies and voice mail.
Watt, Peggy, "Republicans Ready for High-Tech: GOP Convention will Feature Voice Message System," InfoWorld, August 27, 1984 (A21708862) (Supplemental VII)	August 27, 1984	Story on phone system for Republican convention with voice mail, etc.
Weinstein, Bob, "Stock Exchange Gets News by Phone," Inbound/Outbound, October 1988, pp. 39-46 (A21725744) (Supplemental VII)	October 1988	"Inbound/Outbound" article on computerized stock reporting.
Weinstein, Bob, "Stopping the Broker's Bottleneck," Inbound/Outbound, November 1988, pp. 22-23 (A21725753) (Supplemental VII)	November 1988	"Inbound/Outbound" article on stock info.
"West Interactive Settles with FDR: Patent Suit Settlement Could Have major Industry Impact," Enterprise Communications, November 1994 (A01331040) (Supplemental VII)	November 1994	News piece on West-FDR settlement.
Whalen, Bernie, "Marketers Expand Applications of Dial-It 900 Technology," Marketing News, November 26, 1982 (A21725861) (Supplemental VII)	November 26, 1982	News piece on "Dial-it" technology as for various promotions.
"What's An 'Automated' Attendant," Inbound/Outbound, July 1989, pp. 40-42	July 1989	Article on call directors.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
(A21724789) (Supplemental VII)		
"Whether to Answer the Phone," The Washington Post, December 7, 1986 (A21707563) (Supplemental VII)	December 7, 1986	News article anticipates programming terminals for call selectivity, ANI and coded rings.
Whitten, W. B., "Advanced Interfaces Speed Delivery of Services," AT&T Technologies, Volume 2, Number 3 (A21707593) (Supplemental VII)	unknown	Article on AT&T's service management system ass for call sorting, routing, etc.
"Who Switches Data Along with Voice? PBX Users, Increasingly," Data Communications, February 1987, p. 77 (A21707751) (Supplemental VII)	February 1987	Story on PBXs that integrate voice and data.
Wilpon, Jay G., et al., "Speech Recognition: From the Laboratory to the Real World," AT&T Technical Journal, September-October 1990, pp. 14-24 (A21723481) (Supplemental VII)	October 1990	"AT&T Tech. Journal" article on speech recognition.
Wise, Deborah C. "This Computer Even Deciphers Noo Yawk Talk," Business Week, September 23, 1985, pp. 40-42 (A01354687) (Supplemental VII)	September 23, 1985	News piece on AT&T exercise using telephone interface to gather voice data as related to voice recognition, mentions Conversant and Fidelity
Witten, Ian H., "Making Computers Talk: An Introduction to Speech Synthesis," Prentice-Hall, 1986 (A21708148) (Supplemental VII)	1986	Book "Making Computers Talk" section on speech recognition
Wolfe, R. M., et al., "Telecommunications Data Base Application with the 3B™20 Processor," ISS '84 Florence, May 1984, Session 22 A, Paper 2 (A21725518) (Supplemental VII)	May 1984	AT&T paper on stored program switches re 800 calls, etc.
Wollenberg, Skip, "American Express Affiliate Plans Interactive Phone Service," The Associated Press, January 19, 1989 (A01331396) (Supplemental VII)	January 19, 1989	Story on FDR and Katz re: interactive service.
Wong, Stephanie Lam, "Just a Phone Call Away," San Francisco Chronicle, Date Unknown (A21707649) (Supplemental VII)	Unknown	News piece on Frito Lay promotion.
Wood, Lamont, "Stretching the Workday; Corporate Users Find that Voice Mail Saves them Time in Transmitting Important Messages," Computer Decisions, Volume 18, December 2, 1986, p. 44 (A21707561) (Supplemental VII)	December 2, 1986	Story on voice mail and users.

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
Wood, Lamont, "Will New Alliances Forge Better Links? Private Branch Exchange Vendors Merge with Computer Firms," Computer Decisions, Volume 18, July 29, 1986, p. 40 (A21706353) (Supplemental VII)	July 29, 1986	Story: computer manufacturers acquire PBX vendors.
Worrall, D. P., "New Custom Calling Services," The Bell System Technical Journal, Volume 61, Number 5, May-June 1982 pp. 821-839 (A21725897) (Supplemental VII)	May-June 1982	From the "Bell South Journal" AT&T paper on custom calling services, e.g. call waiting, call forwarding, conferencing, message taking, answering, and remote access
"Worthwhile Trivia," The New York Times, Date Unknown (A21706711) (Supplemental VII)	Unknown	News piece on baseball trivia
"Yes! Songs For You," Advertisement, Source Unknown (W73764) (Supplemental VII)	Unknown	Ad for send a song
Youngs, E. A., "The Changing Role of Human Factors Work Supporting New Telecommunications Products and Service," Proceedings of the Tenth International Symposium on Human Factors in Telecommunications, June 1983 (A21725809) (Supplemental VII)	June 1983	Helsinki symposium on human factors in telecom – trends and projects.
Youngs, E. A., "Effects of Automating Operator Services on Customers and Operators," Proceedings of the Eighth International Symposium on Human Factors in Telecommunications," September 1977, pp. 251-255 (A21725776) (Supplemental VII)	September 1977	Paper on the effects of automated services and the future.
"Zenith; Centel Plans Zenith Phonevision Pay-Per-View Cable TV System," Business Wire, December 5, 1985 (A21708105) (Supplemental VII)	December 5, 1985	Story on Zenith pay-per-view
Zeno, Charlie, "Trivia Buff's Special Party for 678 Kids," Contra Costa Times, Date Unknown (A21706788) (Supplemental VII)	unknown	News piece on baseball trivia
Zuckerman, Steve, "Ogilvy & Mather/Dallas Looks for Partner to Go After Bigger Accounts," Dallas Business Courier, Volume 2, Number 21, Section 1, September 8, 1986, p. 12 (A21706454) (Supplemental VII)	September 8, 1986	News piece on Ogilvy and Mather ad agency

CHART C (SUPPLEMENTAL VIII)

Other Documents:

Title of Article/Publication	Date	Comment
Complete Issue of Bell Labs News, Volume 25, Number 36, September 30, 1985 (A21724662) (Supplemental VIII)	September 30, 1985	Article on speech processing in Conversant Systems and other unrelated articles
Complete Issue of Bell Labs News, Volume 26, Number 31, August 18, 1986 (A21706398) (Supplemental VIII)	August 18, 1986	Article describes how Dial-a-View tests ANI, but no accessing, voice cues, PIN, etc.
Complete Issue of Bell Labs News, Volume 27, Number 33, August 17, 1989 (A21710741) (Supplemental VIII)	August 17, 1989	Article describes calls by credit card in which the caller dials in the card number
Bell of Pennsylvania Press Release, March 13, 1984 (A21725876) (Supplemental VIII)	March 13, 1984	News release on caller selection by customer to obtain incoming call control and as call rejection, distinctive ringing, caller i.d., etc.
Dorros, Irwin et al., "Reaching into the Future with Stored Program Control," Bell Laboratories Record, December 1980, pp. 387-393 (A21710507) (Supplemental VIII)	December 1980	AT&T article on stored program controlled network as for: messages, credit verification, automatic and routing
Complete Issue of Voice News, Volume 4, Number 9, October 1984 (A21708913) (Supplemental VIII)	October 1984	Voice mail newsletter mentions new voice related developments and products, customers and courses
Complete Issue of Voice News, Volume 6, Number 7, July/August 1986 (A21706303) (Supplemental VIII)	July/August 1986	Voice mail newsletter mentions new voice related developments and products, applications, customers, courses and markets
Complete Issue of Voice News, Volume 7, Number 2, February 1987 (A21707730) (Supplemental VIII)	February 1987	Voice mail newsletter on speech recognition and vocabulary plus a piece on AT&T board for answering machine use and an AT&T speech card, plus other voice related equipment and business notes
Complete Issue of Voice News, Volume 7, Number 3, March 1987 (A21707834) (Supplemental VIII)	March 1987	Voice mail newsletter mentions developments and products related to voice mail operations, along with business considerations
Complete Issue of Voice News, Volume 7, Number 5, May 1987 (A21714110)	May 1987	Voice mail newsletter regarding voice mail and speech related developments and

<u>Title of Article/Publication</u>	<u>Date</u>	<u>Comment</u>
(Supplemental VIII)		products, applications and business related news
Complete Issue of Voice News, Volume 7, Number 10, October 1987 (A21724749) (Supplemental VIII)	October 1987	Voice mail newsletter relating to Dytel patent, call answer and cue, number translation, routing and greetings. Also, letter mentions new voice mail related products and developments, business and legal news

From the documents listed above, the following examples are isolated and briefly discussed to indicate the extent of interest that they may have to Applicant's claims. For the Examiner's convenience, copies of these documents are being provided.

DOCUMENTS:

1. "AT&T's Flagship System 75: A Comprehensive Analysis of the System 85's 'Little Cousin,'" Telecommunications Product Review, Volume 11, Number 7, July 1984 (A21724612) (Supplemental VII)

The article reveals features of AT&T's "most technically sophisticated" switch for terminal support. The switch has: stored program control, "voice" capability, digital switching, queuing control, etc. However, the switch falls for short suggesting the interface functions and capabilities as claimed by the Katz patents.

2. AT&T Technical Journal – The 5ESS Switching System, Volume 64, Number 6, Part 2, July-August 1985 (A21723626) (Supplemental VII)

The AT&T Technical Journal for July-August (see Contents pp. 1303 – herewith) was dedicated to the 5ESS Switching System, and consisted of several papers on the unit. Most of the papers are directed to the switch per se and accordingly are of no interest here. However, some of the papers could be of some interest and copies are provided. Operational Software (pp. 1357-1384) Data base management is explained (pp. 1364) along with administrative services (pp. 1375). Accordingly, capabilities to collect and process data are revealed, the paper does not suggest specific functions or capabilities as would be pertinent to the Katz claims. Hardware Design (pp. 1417-1437) The paper explains messaging capability and subscriber interface, however, again there are no suggestions beyond broad statements of capability in relation to telephonic interface systems.

3. Greene, James E., et al., "Voice Response System Sticks to the Script and Saves Time, Money and Tempers for University Students and Administrators," Communication Age, January 1986 (A21724080) (Supplemental VII)

The article describes a 1985 telephonic course at the Georgia State University. Although the Operation was historically of interest to computer telephone interface operations, it was only one step beyond information retrieval. However, information was received, acknowledged, and stored.

4. "'Teleguide' Network Gives Tourists the Answers," ComputerData, April 1983 (A21724569) (Supplemental VII)

Article describing an information retrieval system implemented in Canada in the early eighties. Using CRT terminals to receive tourist information. Although the system is interactive, it is distinct as performing merely information retrieval functions.

U.S. PATENTS:

5. U.S. Patent No. 4,799,255 to Billinger et al (Supplemental VA) (filed January 30, 1987, issued January 17, 1989)

As used, ANI is not a consumable key for accessing, but rather an identification to count "bad" attempts to access from a telephone requiring an access code. The system fits the category of tallying "bad tries" to a limit, then restricting the path. The calling number (ANI) as tallied, is not to control access in the manner of consumable key, but rather is used merely to identify the source of calls failing to identify a valid authorization code (C 3, L 38) when such a code is needed for access (C 7, L 42).

6. U.S. Patent No. 5,148,474 to Haralambopoulos et al. (Supplemental VA) (filed August 21, 1991, issued September 15, 1992)

The reference discloses a system for telephonically serving callers with information displayed from a memory to an operator, as a medical technician at a facility where the caller is a patient (C 4, L 39). Essentially, the system interfaces the patient preliminarily to gain identification to fetch and display data for the technician. Alternately, the call is terminated or given to a receptionist (C 4, L

38). In view of the priority data and the substance of applicant's claims, the disclosure is of no pertinence.

FOREIGN PATENTS:

7. PN: 217,308, GD: 12/12/1990, EPA (Specification) (Supplemental VI)

Sept. 30, 1985 (U.S. 781895) The EPO specification discloses a pay-per-view system using telephonic interface, however, which is distinct by reason of not using a network connection to a vendor of the service (see Col. 10, lines 15-23).

8. EP 0 382 670 B1 (Supplemental VA) (published August 16, 1990)

Although the system discloses a state machine, the states (see C 5, L 30) and their functions are quite distinct from applicant's claimed systems involving status registers to control audio recording.

CHART C (SUPPLEMENTAL VIII)

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4. CONCLUSION

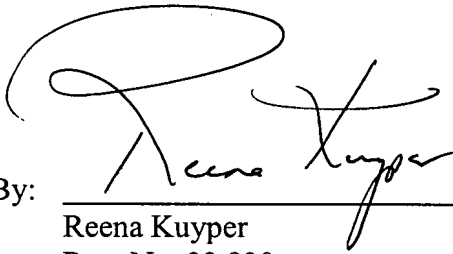
The items identified in this Information Disclosure Statement may or may not be “material” pursuant to 37 CFR § 1.56. The submission of these documents by Applicant should not be construed as an admission that any such patent, publication or other information referred to in these documents is material or considered to be material (37 CFR § 1.97(h)), or even qualifies as “prior art” under 35 USC § 102 with respect to this invention, unless specifically designated by Applicant as such.

The filing of this Information Disclosure Statement should not be construed to mean that a search has been made or that no other material information, as defined in 37 CFR § 1.56, exists.

This Information Disclosure Statement is being filed in accordance with 37 CFR §§ 1.97(c) and 1.98. This IDS is being filed after an action on the merits but before a Final Action under § 1.113 or a Notice of Allowance under § 1.311. A check in the amount of \$180.00 to cover the fee pursuant 37 C.F.R. 1.17(p) is enclosed. The Examiner is hereby authorized to charge any deficiencies or any additional fee required by this paper to A2D L.P.'s Deposit Account No. 50-1636.

Respectfully submitted,

Dated: May 22, 2001

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